JAN 1 1922.

The Canadian Journal of Medicine and Surgery

A Journal published monthly in the interests of Medicine and Surgery

Vol. L. TORONTO, JULY, 1921 No. 1

Editorial

KEEPING FIT AT FIFTY

UNDER this caption the well-known writer, Samuel G. Blythe, contributes a very readable article to the *Saturday Evening Post*, of January 15th, 1921:

He contends that the average American man of fifty eats too much, and recommends him to cut down—but to do so gradually.

The kernel of the article says: Cut down the steak to eight ounces, half as much as you ordinarily eat, and take only one slice of bread and butter. If you eat the potato at all, eat the skin and throw away the starchy inside. If the vegetable is a green one, say spinach, eat a liberal helping. Dismiss the pie from your thought, or if that can't be done, eat only half a wedge of it, and beat it from the table.

Or, suppose there is on the table a meal of oysters

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or salad, soup, fish, two vegetables, meat, dessert and coffee. Take the oysters, if you want to. Pass the soup. Eat the fish or the meat—one helping; one vegetable, one slice of bread, and nibble at the dessert, if you can't conquer the craving for something sweet.

Among Mr. Blythe's dietetic commandments are:

1. Fried foods do not suit the fifty-year-old.
2. Eat only one vegetable at a meal.
3. Green salads are fine, bar onions, cucumbers and cabbage.
4. Eliminate potatoes for a while.
5. Eat no breadstuffs that are not twenty hours old, and not more than two slices at a meal.
6. Take butter as though it were 75 cents a pound —discreetly.
7. Eat eggs boiled, poached or scrambled—only two at a time, and never with meat.
8. Cut sweets to the minimum. Sweet eating plays hob with middle age digestions.
9. Try a fruit breakfast occasionally. Eat fruit on an empty stomach—ripe, but not too ripe.
10. The normal person may take two cups of coffee per day, with a dash of cream or milk, but very little sugar.
11. Milk, if it agrees, may be taken—as a food, not as a beverage—warmed and worked about in the mouth to ensure salivation.
12. Drink at least ten or twelve glasses of water a day—not iced, but as it comes from the tap—three

before breakfast while exercising, shaving and dressing; two while undressing at bed time; the rest scattered through the day; but not with meals.

13. Chew your food thoroughly.

Mr. Blythe, while preparing his elaborate article interviewed, among others, two doctors, practical and progressive students of dietetics—both seventy, bright-eyed and rosy-cheeked, remarkable mentality, vigorous, alert, healthy and hard-working, with big practices. Here is what they ate:

Dr. A.—

Breakfast—Pint of warm milk, tinted with coffee, an orange, peach, baked apple, or raw or baked banana, tablespoonful or two of cream.

Luncheon—A pint of warm milk, four ounces of bread or toast, half an ounce of butter, marmalade or jam; half an ounce of cheese occasionally, and salad.

Dinner—Four ounces of fish or meat; vegetables to satisfaction; a small amount of bread and butter.

Dr. B.—

Breakfast—Two eggs, boiled, poached or scrambled, glass of milk, slice of bread and butter—whole wheat bread.

Luncheon—Eight ounces of meat (half a pound), one vegetable, glass of milk, slice of bread and butter.

Dinner—The same.

SOME SUMMER READING

Now that summer is here, doctors will have time for reading. During the winter few of them have found time perhaps to do more than a little devotional reading and glance at the newspaper.

To those who are not enamoured of the erotic stories published in Great Britain and America; or the light, ephemeral products of such authors as Marie Corelli and Harold Bell Wright; we would recommend Masefield's "Multitude and Solitude"; McFee's "Aliens," and "Casuals of the Sea." W. H. Hudson will powerfully attract all nature lovers, for his books—"The Purple Land," and others, are inspirational. He is no dilletante, but a true nature worshipper. Galsworthy stands sponsor for him—Galsworthy who occupies a position almost at the zenith in the English literary sky.

If poetry appeals, take to the woods Thompson's "Hound of Heaven"; Masefield's "The Everlasting Mercy," or earlier nautical poems. If one desires a little *vers libre* secure a copy of Edgar Lee Master's Spoon River Anthology, or Robert Frost's "North of Boston."

If these books are not available, what better can one do than to re-read some of the old favorites:—"Pickwick," "Vanity Fair," "Ivanhoe," "Pride and Prejudice."

Sydenham, when asked by intending medical students what book to read, replied: "Don Quixote."

No one will regret a careful re-reading of this wonderful story.

Or buy Shaw's favorite: "Pilgrim's Progress." Claudius Clear in a recent number of the *British Weekly* maintains we have forgotten many of the beauties in these old volumes. Quite true. He inquires, what can you recall of Bunyan's fine character, Mr. Fearing?

A charming old friend of the writer of these lines has made a collection of "Don Quixote"—has scores of copies, both in Spanish and English, and is as familiar with all the incidents in this great classic as a Presbyterian elder is of the psalms.

If biography attracts, Boswell's "Life of Johnson" will afford days or weeks of pleasure. If travel interests one, Borrows' "Bible in Spain" will give many hours of delight; but only in bits at a time; or, take, if you choose, Stevenson's "Inland Voyage," or "Through the Cevennes with a Donkey."

If one is interested in religion, he will enjoy Cabot's "What Men Live By," "Religo Medici," "Confessio Medici," or a new book by Macmillan's, called "Spirit," a chapter of which, "The Psychology of Power," is written by a doctor.

An old volume of any year's *Atlantic Monthly* numbers will give hours of delight.

If you pick your wife's books, pack a copy of William Curtis' "Prue and I," or some of Margaret Deland's stories.

And don't forget O. Henry.

Canadian Journal of Medicine and Surgery

Toronto Canada

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Reprints, including halftones, etc., supplied authors at net cost.

Original Contribution

ANOTHER CROW-BAR CASE

Roy H. Thomas, M.B., Toronto.

Reports of injuries inflicted by means of crow-bars are comparatively few in medical literature. The famous case reported by Dr. Henry J. Bigelow, of Boston, in 1848, in which a tamping iron 1¼ inches in diameter penetrated through a patient's fore-brain is one of the most celebrated. The patient lived some years afterward, and on his death his skull was placed in the Warren museum at Harvard Medical School. The case I wish to report is, I think, equally interesting when the important structures in the immediate vicinity of the wounds are taken into consideration.

On March 3rd, 1921, John McK., aged forty, was working on a platform in the man-hole of a sewer about eighteen feet below the street level. He was prying boards from the side of the shaft, using a crow-bar one inch in diameter for the purpose. A fellow workman accidentally fell into the opening above, and McK., hearing a shout, had just turned his head to look up when the workman fell on him, the force of the falling body driving the bar, blunt end first, through McK.'s neck. The point of entry on the right side of the neck was at the anterior border of the sterno-mastoid muscle and on a level with the upper border of the thyroid cartilage. The bar passed slightly upwards and backwards through the pharynx and the left parotid gland, emerging behind and above the angle of the jaw through the lobe of the left ear. The patient states that the bar protruded three or four inches beyond his left ear, that he removed it himself and climbed out of the man-hole. He states that he did not lose much blood, but was given first aid by those at hand and sent to the Shield's Emergency

Department of the Toronto General Hospital. On admission the patient was suffering from a mild degree of shock. He was expectorating some bloody mucus and complained of some pain on swallowing. By compressing the anterior nares and closing

the mouth air could be expelled through the wound of entrance. This wound was of an irregular shape, about 1½ inches long and ¾ inch wide. When the edges of the wound were retracted one could see into the deep tissues of the neck. There was practically no bleeding from the wound of entrance and from the

wound of exit the bleeding was only moderate. This last wound was also irregularly shaped and about one inch in diameter. A sterile probe was with some little difficulty passed into the wound of exit for a distance of about six inches and over this a small drainage was passed. The wounds were cleansed with gasoline and iodine. The wound of entrance was partially closed with sutures and drain inserted to the pharynx but not entering that cavity. The wound on the left side was simply drained, the tube being removed on the second day and gauze substituted. The wound of entrance healed in about one week with practically no suppuration. On the second day after the accident there was a copious discharge of clear fluid apparently from the parotid gland on the left side. There was also considerably more inflammatory reaction on the left side of the neck than there was on the right, but the salivary fistula promptly healed, and the suppuration, which was very superficial, soon responded to treatment. Beyond some tenderness on the left side of the neck patient now (April 28th) complains of no disability whatever. The day following the accident he was able to swallow liquids with very little discomfort.

The course of the bar through the pharynx was apparently behind the base of the tongue and above the epiglottis.

The accident demonstrates the possibility of practically uneventful recovery after severe traumatism in what has been aptly termed "the dangerous region," that is, the anterior triangles of the neck. It is interesting to note that the point of entry of the bar is only very slightly above the bifurcation of the common carotid artery and pulsation of that vessel can be distinctly felt just behind the scar on the right side. The fact that it was the blunt end of the bar which entered the neck, apparently shoving all the important structures aside, likely accounts for the limited amount of hemorrhage and also the minimum of damage to the structures in the immediate neighborhood.

The photograph reproduced herewith shows the scar of the wound of entrance and also the bar which actually passed through the patient's neck.

Selected Articles

A PLEA FOR THE MORE GENERAL USE OF LOCAL ANESTHESIA*

Andrew J. Grant, M.D., London, Ontario.

Ever since Richardson in 1866 demonstrated the possibility of anesthetizing the skin by means of ether spray, the subject of local anesthesia has received considerable attention, but nothing of any great importance was accomplished until the introduction of cocaine by Koller,[1] of Vienna, at the Heidelberg Ophthalmological Congress in 1884. For centuries the South American Indians have recognized the invigorating qualities of coca leaves when chewed, and this fairly general habit was responsible for the discovery of the most valuable medicinal property of the plant because numbness of the tongue from local contact with the drug is quite as apparent as is the constitutional effect.

Naturally topical application was tried first, and the new drug soon established itself in the field of ophthalmology as well as of rhinology and laryngology in rapid succession. That cocaine has been of great service in the above mentioned specialties is well vouched for by the prevalence of its use at the present time, but the drug has no such record when injected into the tissues, and the dangers in connection with this method were recognized early so that diligent search for a safer local anesthetic has occupied the attention of medical science even up to the present day. The first solutions of cocaine were used much too strong, and the success which has attended the use of the various combinations of drugs for local anesthesia has well borne out this fact. Schleich's solutions, which used to be so

*The original Novocain of British manufacture is freely distributed through trade channels throughout Canada; the Canadian agent is Mr. W. Lloyd Wood, Toronto.

popular, contained as little as 0.01 per cent. of cocaine combined with morphia and sodium chloride. That the morphia was of much assistance constitutionally we are quite ready to admit, but we have long since known that the local action is entirely due to the cocaine, assisted by the pressure created in the tissues by the large volume of salt solution.

In the effort to get away from the toxicity of cocaine, Braun, Reclus, and Legrand introduced eucaine, and Custer brought tropacocaine to the attention of the profession, but both were found to be much less potent and more evanescent than cocaine. Stovaine, alypin, holocaine, aposthesine, and various other drugs have been introduced, and all have their merits, but it seems to me that more nearly the ideal has been reached in novocain than in any of its predecessors. Braun's[2] demands for a local anesthetic are as follows: That the drug should be less toxic than cocaine proportionately to its local anesthetizing power; that it should not cause any damage to the tissues; that it should be soluble in water and easy to sterilize when in solution; and finally that it should be capable of being combined with some adrenal preparation. Novocain measures up to all these standards and is now manufactured in the United States by several firms and marketed under the name procain.* It was discovered by Einhorn in 1905, and is a synthetic chemical, readily soluble in water, and may be heated to 120° C. without decomposition. Aqueous solutions are decomposed by alkalies—a point of practical importance in the sterilization of syringes and containers, as even a trace of alkali will precipitate the anesthetic solution and destroy its potency.

Dosage. In so far as I have been able to ascertain, novocain is practically nontoxic, and I have frequently used 100 c.c. of half per cent. solution without the slightest inconvenience to the patient, while I recall one case where 200 c.c. was used in the excision of a pilonidal cyst. The drug seems to be so free from toxicity that large quantities of weak solutions may be used with impunity, and this factor is of great assistance in producing real anesthesia over a sufficiently large field to facilitate a complete operation without causing the patient any pain.

Strength of solution. For ordinary use in loose tissues half per cent. solution, as recommended by Braun, will give perfect

*Manufactured and marketed in Canada under the name of Anocain.

anesthesia, and the weak solution is an advantage because of the additional volume of liquid at one's disposal. For bone work a one per cent. solution is better because the quantity of liquid which may be injected beneath the periosteum is quite limited. Stronger solutions up to four per cent. are frequently useful for blocking particular nerve areas such as in surgery of the mouth and maxille, while still stronger solutions are in popular use for topical application to mucous membranes. It is especially valuable in urethral work because of the well-known danger of cocaine in this region.

Addition of adrenalin. This addition serves two very useful purposes. In the first place the length of anesthesia may be prolonged by the judicious use of the adrenal product, and secondly, the hemostatic effect is of great assistance during the operative procedure. In this connection it is well to remember that the danger of post-operative hematoma is much in evidence and more perfect hemostasis is necessary than when operating under a general anesthetic. A strength of 1-2,000,000 is generally useful, but in very vascular areas or when prolonged anesthesia is required, the strength may be increased to advantage even up to 1-40,000. In plastic work when the vitality of sliding flaps enters into the consideration, it is well to work with as weak an adrenalin content as possible. Especially is this a fact if the pedicle of the flap is either very long or very narrow, as one may quite readily destroy the flap by shutting off the circulation with too much adrenalin. The combination of an adrenal product with the anesthetic has been one of the greatest factors in bringing local anesthesia up to its present state of perfection because absorption is retarded directly according to the quantity of hemostatic employed, thus allowing the nerves to remain bathed in novocain.

Preparation of patient. In operations under local anesthesia the psychic element plays a very important part, and we might well state the fact here that all patients are not good subjects for this method, although much depends upon the personality of the surgeon and his ability to "handle" the patient. A mild hypnotic such as sulphonal or veronal on the preceding night is good practice to insure sleep, and a hypodermic of morphia should be given half an hour before operation. Hyoscine is frequently combined with the morphia, but the

drug is, in my estimation, too dangerous for general use, and I have seldom seen the necessity for such a combination. A good tactful nurse does well as a psychic anesthetist to keep the patient engaged in conversation and otherwise distract his attention from the work in hand. Organization in the operating room should be so perfect that talking on the part of either the surgeon or his assistants is reduced to a minimum. A reference to bleeding or the mention of instruments which ordinarily cause pain may quite easily disturb the patient's equilibrium and suggest painful sensations when the manipulations in progress are really not causing him any actual distress.

Technique. One of the most important steps is the provision of a very liberal anesthetic field for the operation and failure to do this very thing accounts for many of the cases that we have all seen where the operation has been performed under great difficulty and with much anguish to the patient. By the use of a long fine needle it is very easy to infiltrate a large area and the only pain to the patient should be the initial puncture. Working subcutaneously and depositing solution all the while it is quite possible to draw loose tissues, such as the abdominal wall, towards the point of the needle so that one commands an area of tissue nearly twice the length of the instrument. In this manner a large oblong tract should be blocked off so that retraction of flaps or dissection in the tissues at a reasonable distance from the incision may be possible without causing pain. My regular practice is to wait for five minutes before making the skin incision, thus allowing the anesthetic sufficient time to permeate into the nerve endings. The deeper tissues are injected in much the same manner, but it is not necessary to go quite so far afield from the incision as in the case of the subcutaneous injection. It is well to inject the deeper tissues along the line of the proposed skin incision and then complete the deep anesthesia under direct vision, after going through the skin. In abdominal work a third injection must be made into the properitoneal tissue before cutting into this membrane as the parts in this region are extremely sensitive. If the operation entails work on bones an injection beneath the periosteum is necessary. Endoneural injection, as originally practised by Crile, is quite unnecessary, and the recognition of this fact has assisted much in the development of regional or

conductive anesthesia. Plenty of anesthetic in the immediate vicinity of the nerve supplying the part and sufficient time allowed for permeation will produce the desired result quite as effectually as the more delicate and difficult method of injecting the nerve directly. Thus the exposure of the nerve in question is rendered unnecessary and we may depend upon the usual anatomical landmarks and bony prominences to direct the needle into the immediate vicinity of the nerve.

The operation. It is quite possible to anesthetize tissues against the necessary surgical insults, such as cutting, careful blunt dissection and suturing, but the rough use of retractors or otherwise pulling upon tissues or organs will always cause pain. Everything must be handled with the utmost care and gentleness, and since the patient is not being subjected to the risks of a general anesthetic, his interests are best considered when we take plenty of time to do the work well without causing him pain. All instruments should be in first-class condition and everything of the cumbersome order eliminated. Picking up a bleeding point with a large hemostat may cause intense pain, whereas the same procedure with a neat, slender-pointed instrument would take care of the bleeder without involving a mass of the surrounding tissue with its bundles of small nerves. In abdominal work an accurate diagnosis, a liberal incision and a good working knowledge of anatomy are the prime requisites, and given these, together with a careful, painstaking surgeon, there are few operations in this region that cannot be done under local anesthesia. The abdominal viscera are quite insensitive except when traction is made upon the mesentery. Anything but very careful handling of the stomach and intestines will produce nausea so that exploration is much limited, and this is one of the greatest disadvantages of the method for abdominal surgery. Even if our diagnosis is correct and we find a chronic appendix, it may mean much to the patient to ascertain the condition of his gall bladder and the possible presence of stones. Such a procedure under local would surely cause the patient considerable pain.

Field of application. If we include under the heading local anesthesia, conductive anesthesia, then there are few surgical operations in properly selected patients that cannot be accomplished in this manner. As early as 1891 Schleich reported

two hundred and twenty-four operations performed under very dilute solutions of cocaine, the list including many laparotomies, and Cushing[3] in 1900 reported forty-nine herniotomies out of a total of two hundred and thirty-three such operations performed within a two-year period at Johns Hopkins. The above two series taken at random from quite voluminous literature on the subject would indicate that even with cocaine, the method was popular, and that a successful technique had been developed, but the dangers of the anesthetic, together with the additional toll taken out of the surgeon by way of inroads on his time and the difficulties of dealing with a conscious patient have had the effect of making local anesthesia less popular. There have been good reasons for the lack of enthusiasm on the subject among surgeons, but it would seem that the objections have been pretty well overridden, and I firmly believe that the interests of our patients would be better served by a more general use of the method. Patients are daily being subjected to the risks and disagreeable after-effects of a general anesthetic for operations on hemorrhoids, hernia, radical hydrocele, and the excision of neoplasms who might just as readily be operated upon under local anesthesia by the expenditure of a little more time and patience on the part of the surgeon.—*The Canadian Medical Association Journal.*

References.

[1] Hirschel.—"Text-book of Local Anesthesia."
[2] Braun.—"Local Anesthesia."
[3] Cushing.—*Annals of Surgery*, vol. xxxi, 1900.

Therapeutic Periscope

HYPERTHYROIDISM

F. M. Smith, Chicago (*Journal A. M. A.*, Dec. 13, 1919), has studied thirty men at Camp Travis, Texas, who showed symptoms suggestive of hyperthyroidism—rapid pulse, thyroid enlargement, fine tremor of hands, moist, clammy palms, and some of the ocular symptoms—to determine whether the thyroid gland was culpable. In addition to the usual physical examination and laboratory work, the tolerance to blood sugar was tested, and the epinephrin test used. The technic of the tests and the methods of thyroid administration are described. Most of the men gave Texas as their native State. Fifteen men had been in service from two to six months and nine from six to twelve months, and responded well to military service. Practically all were recovering from influenza—the predominant continuing symptom being nervousness. In six instances the final diagnosis was hyperthyroidism, based on the response to thyroid feeding and the other tests mentioned, the former being considered the most reliable. In seven of the cases the diagnosis was irritable heart; in five the trouble had existed before enlistment, while in two it seemed to be a result of the influenza. Simple tachycardia was the diagnosis in seventeen cases. In sixteen of these no cause was found. None of the cases diagnosed irritable heart or simple tachycardia, responded to doses of 5 grains of desiccated thyroid, nor was there any suggestion of disturbed carbohydrate metabolism. The studies, however, go to show that in some cases, which might ordinarily pass as irritable heart, the thyroid plays an important part, but its activity can be unmasked only by most careful examination.

BACTERIAL INFECTION AS A CAUSE OF RHEUMATISM, AND ITS TREATMENT

The term "rheumatism," defined as "an indefinite something induced by cold and exposure, always affecting either muscle or joint, and with pain on motion as a prominent symptom," has been much abused and sadly overworked, says Dr. F. E. Stewart in the *Mulford Digest.* Every pain affecting the human body which could not be otherwise accounted for has been ascribed to "rheumatism."

We have been taught to differentiate between rheumatism and gout, and told that the latter is "a painful constitutional or diathetic disease, acute or chronic, with joint inflammation and chalky deposits, and an increase of uric acid in the blood," and differentiation has been made between "rich man's gout" and "poor man's gout," the former being attributed to "excess of food and sweet wine," and the latter to "hard work, exposure, ill feeding or excess in the use of malt liquors."

And now, after clinicians have been for centuries building up a wall of differentiation between "acute" and "chronic rheumatism," and another one to fence off "gout," we are told that these different diseases are not several entities but groups of symptoms caused by bacterial infection, all of which may result from a septic mouth, and all more or less curable by getting rid of the cause and treating the condition.

For the treatment of streptococcic rheumatism a polyvalent bacterin may be employed prepared from different strains of streptococci isolated from rheumatic cases, or a mixed or combined bacterin may be selected containing pneumococci, staphylococci and streptococci. The pneumococcus is included because the majority of patients suffer with infectious rheumatism as the result of infection from a septic mouth and the pneumococcus is invariably found associated with the streptococcus and staphylococcus in the pockets of infection existing at the margin of the gums.

For the treatment of gonorrheal rheumatism a bacterin is supplied containing the gonococcus, staphylococcus (aureus and albus), streptococcus, bacillus coli, and the diphtheroid bacilli,

because chronic gonorrhea is a mixed infection and these micro-organisms are found in a very large percentage of patients. The micro-organisms used for preparing the bacterin are taken from a large number of cases of chronic gonorrheal prostatitis and are, therefore, polyvalent.

DERMATITIS FACTITIA

A CASE of dermatitis factitia complicating hysterical paralysis is reported by Samuel Ayres, Jr., Boston (*Journal A. M. A.*, Dec. 13, 1919). The case was a hysterical paralysis of the left leg which had lasted with various symptoms for eight years. A skin eruption had been present for several months, according to the patient's account. It began at the left great toe and spread over the foot and up the leg, usually purplish first, sometimes red. Sometimes the blotches would persist for several days and then little drops of blood, which the patient claims to have seen, would ooze out. The family history revealed nervous temperament in the mother, a paternal aunt had nervous attacks and choking and spasms, and the father had congenital nystagmus; otherwise it was negative. The patient herself complained of various symptoms; had had appendectomy ten years before, early decay of teeth, hysterical anesthesit in left leg at present time, and there were dull areas of scratch marks over the dorsum of the left foot, and some dull red or purplish discoloration. A phonograph needle was found in the patient's hand bag, stained with blood, determined chemically and morphologically as such, but its use was denied by the patient. The facts, however, are interesting. The patient was treated psychopathically with success. She, who had been an invalid unable to walk for eight years, was able to use her paralyzed leg without crutches in three weeks, under treatment by psychotherapy with active exercise and passive movements, and hardly any medical treatment, analgesic or otherwise. Ayres considers the dermatitis as self-inflicted, probably in states of amnesia or semi-consciousness.

The Physician's Library

A Physician's Anthology of English and American Poetry, selected and arranged by Casey A. Wood, M.D., and Fielding H. Garrison, M.D. Humphrey Milford, Oxford University Press, Amen Corner, London, E.C., England. 1920. Price 8s. 6d. net. (New York, Toronto, Melbourne, Cape Town, Bombay, Calcutta, Madras, Shanghai, Peking and Copenhagen.)

This volume was intended as a birthday tribute to Osler, a tribute from a Montreal student and an American pupil. Too late for his 70th birthday ceremonies, it was in the hands of the printer when he died, the verses already having passed his approval. There are some 150 or so contributors, a few being doctors—Holmes, Weir Mitchell and Thayer for example. A good many of the selections will be more or less familiar to most medical men, as most of the well-known poets are drawn upon. This little collection will be welcomed by the busy practitioner who loves verse. Any selection can be read in a few minutes. Many of them should be memorized.

Rational Treatment of Pulmonary Tuberculosis. By Charles Sabourin, M.D., Medical Director of the Durtol Sanatorium, Puy-de-Dome, France. Authorized English translation from the sixth revised and enlarged French edition. Philadelphia: The F. A. Davis Co., publishers. 1921. Price, $3.50 net.

This work will be welcome not only to the specialist in tuberculosis, but also to the general practitioner. The author first discusses the etiology and immunology of the disease, its clinical course, or curability, and the great importance of early diagnosis. The general management of these cases is

discussed clearly, as well as the specific and symptomic medication. Chapter VI discusses the hygiene of the digestive and respiratory tracts, of the act of coughing, of expectoration, of the urine and of the menstrual period. The complications are amply dealt with, results discussed, and the question of sanatoriums considered. The final chapters are devoted to the social hygiene of tuberculosis.

International Clinics. A Quarterly of Illustrated Clinical Lectures, and especially prepared original articles on treatment, medicine, surgery, neurology, pediatrics, obstetrics, gynecology, orthopedics, pathology, dermatology, ophthalmology, otology, rhinology, laryngology, hygiene and other topics of interest to students and practitioners, by leading members of the medical profession throughout the world. Edited by H. R. M. Landis, M.D., Philadelphia. Vol. 1, 31st series, 1921. Philadelphia and London: The J. B. Lippincott Company. 1921. Price of this volume $2.50, or of series of four volumes, $10.00.

Among the instructive papers in this number one finds a review of the progress of medicine for 1920 by Dr. Frank Craig, and a review of the progress in surgery by Dr. John Speese. One of the most interesting contributions is that of Prof. Voronoff on Transplantation of Thyroid and Interstitial Tissues.

The Roentgen Diagnosis of Diseases of the Alimentary Canal. By Russell D. Carman, M.D., Head of Section of Roentgenology in the Division of Medicine, Mayo Clinic. Second edition, thoroughly revised. Illustrated. Philadelphia and London: The W. B. Saunders Company. Canadian agents: The J. F. Hartz Co., Limited, Toronto. 1920. Price, $9.50 net.

A book from the Mayo Clinic is well worth reading. This book is no exception to the rule. The author who is in charge of the section of Roentgenology of the Mayo Clinic has had all

the advantages of the thorough investigation of his patients as provided there. The result in his opinion is a balanced one; he does not try to interpret by X-ray examination further than the examination justifies.

Short chapters on X-ray apparatus, general technique and interpretation are followed by detailed descriptions of the examination of the various portions of the gastro-intestinal canal. Cases are quoted and illustrated extensively. The opinions expressed are conservative and not too technical. The volume will prove instructive and interesting to surgeons and internists as well as to roentgenologists.

Radiographic Technique. By T. Thorne Baker, A.M.I.E.C. London: Constable and Company, Limited, 10-12 Orange Street, W.C.2. 1921. Price 15s.

This book is instructive regarding the photographic side of X-ray work—both in material used and in methods of using them, and will accordingly give the technician and dark room assistant more knowledge of, and perhaps more interest in that side of the work.

The reference to X-ray in industrial work, and to the possibilities from discovery of X-ray spectra are interesting.

Diagnostic and Therapeutic Technic. A Manual of Practical Procedures Employed in Diagnosis and Treatment. By Albert S. Morrow, M.D., late Lt.-Col., M.C., U.S.A. Third edition, entirely re-set, with 892 illustrations, mostly original. Philadelphia and London: W. B. Saunders Company. Canadian agents: The J. F. Hartz Co., Limited, Toronto. Price $8.75 net. 1921.

Dr. Morrow is to be congratulated upon his third edition. It is one of the best works on diagnosis that has reached our Review Department for some time, and we have run through it with a great deal of interest. The book is freely illustrated. The section devoted to the making of smears for microscopical examination, the collection of discharges and secretions is

thoroughly practical, as also the chapter dealing with the aspiration of the pleural cavity, the pericardium and aspiration for ascites. We commend also the contribution dealing with inspection of the stomach, palpation, percussion, and auscultation, a section of the book that any practitioner would benefit from by reading carefully.

Lucinda. By Anthony Hope. D. Appleton and Company, New York and London.

A new novel by this well-established author is always welcomed by his large circle of readers, many of whom are old-fashioned enough to prefer novels that interest and entertain without obtruding problems of personal conduct or public conditions. Mr. Hope never forgets that "the story is the thing."

Two women, one full of charm but poor, the other without that magic quality, but endlessly rich; and the manner in which they enter into and influence the lives of four men, three British and one Italian, forms the theme of the story. The book has humorous human insight. The characterizations are distinctly good, and the local color well caught, while the plot is sufficiently unique to hold the reader's attention throughout.

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and other topics of interest to students and practitioners by leading members of the medical profession throughout the world. Edited by H. R. M. Landis, M.D., Philadelphia, Vol. IV, 30th series. Philadelphia and London: The J. B. Lippincott Co., 1920.

Dr. L. F. Bishop's article on The Relation of Nervous Diseases to Heart and Blood Vessel Diseases, in a practical article calls attention, among other striking points, to the

" marvellous recoveries from cases of serious cardio-vascular disease in which he has reduced the number of food proteins to the lowest possible terms, thus cutting out the aminoacids to which the individual is idiosyncratic. A Clinical Conference on Obstetrics by B. C. Cooke is very interesting, as is a contribution on Precepts of Infantile Therapeutics by Dr. Louis G. Quintric-Lamothe, of Bordeaux, France.

Handbook of Diseases of the Nose, Throat and Ear. For students and Practitioners. By W. S. Syme, M.D., F.R.F.P. and S.G., F.R.S.E. E. & S. Livingstone, 17 Teviot Place, Edinburgh, 1920.

There are a large number of textbooks available for practitioners and students, most of which are rather cumbersome, and not particularly interesting. This book by Dr. Syme is a small one and written in easy style, and it is a sound representative of the practice of British Oto-Laryngology. It is a most excellent manual for general practitioners and students.

"The Canadian Mother's Book" was published a few weeks ago by the Department of Health, Ottawa, and we think will be found most useful in every Canadian home. It contains an immense amount of information and is a credit to the Chief of the Division of Child Welfare. There are more than 200,000 babies born every year in Canada, and anyone who wishes may have a copy by writing to the Deputy Minister of the Department of Health, Ottawa. The French edition of the book is in hand and will be issued very shortly.

Mortality Statistics of Insured Wage-Earners and their Families. Experience of the Metropolitan Life Insurance Company, Industrial Department, 1911 to 1916, in the United States and Canada. By Louis I. Dutlin, Ph.D., E. W. Kopf, and Geo. H. Van Buren. New York: Metropolitan Life Insurance Company, 1919.

TREATMENT OF SYPHILIS WITH GALYL

Analysis of a Recent Thesis by Dr. Paul Richard, Surgeon-Major in the French Armies.

Galyl is an organic arsenical derivative, a substitute for Salvarsan and Neo-Salvarsan, its superiority to the latter consisting in its lesser toxicity, absence of congestive and neurotropic action, greater activity and almost instantaneous solution,

Method of Use—Doses.—The author has had occasion to observe and treat with Galyl twenty-eight cases of various syphilitic manifestations, all of which were in the primary or secondary stage. The results were excellent, the drug was well tolerated, the improvement was rapid, the symptoms disappearing in a very short time.

Galyl was used exclusively in the form of intravenous injections of a concentrated solution, the same as with Neo-Salvarsan.

Dr. Paul Richard administered a series of injections of gr. 0.20 Galyl, with an interval of four or five days between each injection, sufficient for the complete elimination of the drug. The patients usually showed continued negative Wassermann after the fourth injection. The injections were then administered only every five or six days until the patient had been given 2 grammes of Galyl.

Reactions.—The injections were well tolerated and the occasional reactionary symptoms were never of a disquieting nature. Galyl is much better borne than the other arsenicals. It has never been known to cause induration of the veins, diarrhea, albuminuria or nervous reaction.

Therapeutic Results, Primary Manifestations.—The time required for complete healing naturally depends upon the extent of the lesion. Small chancres, simply erosive and uncomplicated by phagedena, heal in from four to eight days; medium-sized chancres require from ten to twelve days to heal, but their appearance improves immediately after the first injection. They become flattened, their surface becomes dry and covered with epidermis. The very large, ulcerative, phagedenic chancres heal much more slowly. Owing to the secondary infection which complicates the syphilitic infection,

repair in these cases may require from twenty-five to thirty days. The induration usually disappears in from ten to fifteen days after the chancre has healed. The concomitant adenopathy (enlarged and indurated lymphatic glands) takes longer to disappear.

Conclusions.—Briefly then, Galyl is a powerful antisyphilitic drug, easily manipulated and harmless when properly administered. It seems to be more active than the other arsenical derivatives now in use. It is particularly advantageous for the Allies to possess a drug of this nature which they may use in preference to Salvarsan, Neo-Salvarsan and imitations of these preparations, thus excluding all German products and nullifying the moral effect that might be derived therefrom.

APPROVES OF CIGARETTES*

Callers at the White House in Washington during the regime of the new President of the United States will notice one difference, at any rate, between Harding and his predecessors during the last nineteen years. President Harding enjoys smoking cigarettes, and the *Baltimore American* comments favorably on the significance of this approval of smoking—"as indulged in by a most genial, gracious and companionable personality." It is another proof that in these strenuous days the cigarette is a valuable aid to "men at the top."

ROSE AVENUE HOSPITAL, TORONTO*

A private hospital provides homelike qualities often unknown in large public hospitals, and the closer personal attention usually characterizing the smaller tends to become lost in the complexity of the larger institutions. To assist in meeting the existing demand for private hospital space, Rose Avenue Hospital, situated at 258 Wellesley Street, has been equipped to accommodate sixteen patients, and its operating room and wards have been placed at the service of any members of the medical profession. Those more directly interested in its administration aim to combine courtesy with efficiency in meeting the requirements of the profession at rates as reasonable as would be consistent with good service. Dr. Arthur Thomson, Superintendent. Phone, N2839.

*Publishers' Department.

AN IDEAL RESORT FOR CONVALESCENT PATIENTS*

Physicians have frequent opportunities of referring those convalescing from illness to a resort where they can quickly recover their old-time vigor and enjoy an almost ideal climate, 2,500 feet above sea level. Such a resort is Virginia Hot Springs, just one night out of New York. The management have spent a huge sum of money on this choice spot in "Old Virginny," and are anxious that the Canadian medical profession should continue to refer cases there, as they have done in years gone by. The Homestead Hotel is one of the handsomest houses in America. It is built of solid brick, containing 500 guest rooms, with many parlor suites and 300 private baths. It is spacious, dignified, quiet and restful, with magnificent mountain views on every side. It is no exaggeration to say that Hot Springs means the Homestead Hotel. The Company owns 5,000 acres surrounding the hotel, so that physicians can understand that their patients have every opportunity of enjoying outdoor life and regaining thereby their normal strength.

The dominant factor making Hot Springs world-famous is the cure in which the climate as well as the water assist. The waters are conducted by gravity to the bathhouse and distributed fresh from the ground to the bathing apartments on different floors without loss of heat or its increase by artificial means, and fully charged with all their gases and other health-giving qualities. At none of the celebrated places in Europe, and at no other springs in America, is the temperature prescribed for hot baths that at which the water actually emerges from the earth in the natural springs.

The springs are beneficial, not only for bathing, but for drinking. Besides the hot springs, the effects of which as drinking waters are pronounced. there are magnesia, sulphur, and soda springs within the grounds, and alum water from a spring not far distant. The water from the soda spring comes strong and clear from the ground at a uniform temperature of 74 degrees. Physicians should address for full information Christian S. Andersen, Esq.

*Publishers' Department.

The Canadian Journal of Medicine and Surgery

A Journal published monthly in the interests of Medicine and Surgery

Vol. 50. TORONTO, AUGUST, 1921 No. 2

Editorial

TORONTO UNIVERSITY FACULTY OF MEDICINE

PROFESSOR DUNCAN GRAHAM outlines the status of the Department of Medicine in the Provincial University in the April *University Monthly*.

Dr. Graham traces the growth of medical schools from the old days of the privately-owned school to the present purely university controlled faculty.

With the introduction of laboratories the old didactic instruction in the fundamental medical sciences, which consisted mainly of quotations from authorities, was replaced by practical work and demonstrations.

Those engaged in clinical work realized that a training in the fundamental sciences—physics, chemistry, bacteriology, etc.—was necessary to their advancement in clinical investigation. Osler con-

tended that " The study of Physiology and Pathology within the last half century has done more to emancipate medicine from routine and the thraldom of authority than all the work of all the physicians from Hippocrates to Jenner."

In 1893 Johns Hopkins hospital led the way—following the German plan. Since then many universities have complete control of their medical faculties and of hospital clinics and treatment of patients. Osler represented in himself the practitioner, well-grounded in pathology. He extended the Edinburgh method of bedside instruction, a plan not followed by the Germans at that time. He correlated laboratory work with clinical instruction. He organized the resident system of house officers along German lines.

The success of the fundamental science departments, including Pathology, Bacteriology, and Hygiene, in teaching, research, and the training of future teachers and investigators, following the appointment of whole-time teachers in those departments, encouraged the adoption of a similar plan for the main clinical departments. Teaching and research in these departments has always been greatly handicapped, because teachers were forced to engage in private practice to gain a livelihood.

Beginning in 1919, the department of medicine in Toronto University has a full-time Head, on salary. He may do a limited amount of private practice. Five other members of the whole-time staff are clinicians in training, each having had special training

in one or more of the medical sciences—Physiology, Biochemistry, Pathology, Bacteriology, and Immunology. They assist in the care of patients and in teaching, and receive $1,500 to $2,500 per year. They are allowed to practise privately from 4.30 to 6.30 each day.

The remainder of the staff—some 80 per cent.—are engagd in privat practice, but devote a part of their time to teaching and hospital work.

The part-time clinicians, who are interested in special branches, such as Skin, Nervous System, Cardio-vascular System, etc., have charge of these cases in the hospital.

Although no definite system can be laid down or may be advisable for the training of all clinical teachers, the department considers it necessary, for those wishing to qualify, that they spend one year in a laboratory before or after an internship of one year in a general hospital on a rotating service, and one year as senior house physician in Medicine. Graduates, who have had the above training, may apply for a whole-time appointment in the department of Medicine as a clinician in training. During this period they will be encouraged to conduct research along lines in which they are specially qualified through their special laboratory training. The original investigator is born, not made, and if found among those undergoing the graduate training described above, he will be afforded time and facilities for special research.

BRUSHING UP

A COMPETENT observer notes that most general practitioners, whether in urban or country practice, are the better for refreshing their knowledge of medicine. A fortnight once a year should be a minimum; and this not counted as a vacation. Some practitioners seem to forget the fact that patients in their community were cared for long before their advent into that locality, and that some one will carry on, quite as competently as they, after they have gone.

Why is it so many men stick so close to their work, year in and year out, scarcely ever stopping for a holiday, refresher course, or even medical society?

Partly heredity is to blame. Our sires and grandsires came into this great timbered country, settled down to hard humdrum toil, transforming it from a wooded wilderness to a veritable garden. They scarcely ever took a day off; at first they couldn't afford to; latterly they didn't care to. Their work was their pleasure. They strove amid self-denial and hardship that their children might have an education and an easier and better lot than theirs. Many of us have their splendid spirit of stick-to-it-iveness and self-renunciation.

Then, too, some of us feel it difficult to get away from home ties and duties, and from the expectant mother or the long-drawn-out case which demands our daily attendance. A good many medical men, we believe, are over-conscientious about these home and professional ties. They forget that a "ship

captain makes a good husband"; they forget the story of the doctor who went off on an enforced holiday and, on returning, found all his patients better.

We should turn our patients over to one of our confreres and break away. Numbers of young men commencing practice are longing to work. Let them have your practice for a month, even though some of the families stick to them on your return. It will pay in the end. You will be a long time dead.

FAKERISM

WE are a long way from the millennium. There has been sent to this office from a Chicago office a communication condemning vaccination and the use of serums. The writer of the letter says that their use is directly responsible for "the enormous death rate from influenza, cancer, etc." and calls on employers of labor to protest against allowing "these political doctors" of the departments of public health to vaccinate their employees, "as their selfish purpose is to scare as many as possible into submission to being separated from $2.00 of their hard-earned money."

Along with this tommyrot is an application for membership to the American Medical Liberty League at $2.50 per year, which includes a subscription to *Truth-teller*. There is also another blank form to be filled in which, upon doing and returning to the sender of the circulars, the corre-

spondent will, for $1.35, receive a copy of " Fasting and Man's Correct Diet." A footnote to the covering letter says: Tuberculosis and cancer have both been cured by fasting, yet they are seldom, if ever, cured by allopathic treatment.

Such outrageous drivel! Why do the intelligent American and Canadian Government allow such frauds to use the mails? Surely the Public Health Departments of these two Governments upon representations to the Postmasters-General could prevail on the latter to exclude such absolutely fraudulent material from the use of post-offices and mail bags. To bring the matter to the attention of the respective Public Health Departments the Canadian and American Medical Associations might easily memorialize them on the subject.

Canadian Journal of Medicine and Surgery

Toronto Canada

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the first of the month previous to publication.

Reprints, including halftones, etc., supplied authors at net cost.

Selected Articles

ELECTIVE LOCALIZATION AND FOCAL INFECTION FROM ORAL SEPSIS*

E. C. Rosenow, M.D.

That foci of infection, often insignificant and symptomless in themselves, are a cause of systemic disease is indicated by many facts. Clinical studies have shown that focal infections are present in demonstrable form in a high percentage of the sick, including children. Thorough removal of foci of infection is followed by improvement in the general health and frequently by improvement or cure of distant local and systemic diseases, provided the changes are not too far advanced. Indeed improvement has occurred so often that many physicians have come to regard these observations as proof of etiologic relationship, and if improvement does not follow the removal of a given focus it is considered presumptive evidence either that the particular operation was not properly performed or that other foci exist. Exacerbations of systemic conditions immediately following the removal of certain foci of infection further suggests causal relationship. The idea of an etiologic relationship is not new, and relief of systemic conditions following the removal of foci of infection is mentioned in the older medical literature.

Rush in 1801, cited by Duke, after mentioning a number of striking cures which followed extraction of diseased teeth made the following statement: "I have been made happy by discovering that I have only added to the observations of other physicians, in pointing out a connection between the extraction of decayed and diseased teeth and the cure of general diseases." Miller, in 1889 demonstrated that infection of the mouth may

cause constitutional disease. Pyorrhea is mentioned as a causative factor in pathologic condition of the joints and tonsilitis as frequently accompanying rheumatic fever. A. D. Black emphasizes the importance of dental lesions in ocular disease, and in a review of the older medical literature, gives numerous instances indicating causal relationship between dental lesions, particularly in the form of alveolar abscess at the root apex, and pus pockets along the side of the root, to diseases of the eye. The relationship between ill health and infections of the mouth was thought in earlier years to be due chiefly to the swallowing of pus and putrid material.

Notwithstanding the repeated suggestions of etiologic relationship, the medical and dental professions, as a whole, remained indifferent until Billings in *Journal A. M. A.*, 1914, and his co-workers made their extensive clinical observations and correlated experimental studies in animals, demonstrating the importance of septic foci, even when small, as a source of chronic infections conveyed by the blood stream. The broader conception of this interrelationship, well expressed by the term "focal infection," may therefore be regarded as having had its origin in recent years. The experimental studies included dental foci as well as localized infections in other parts of the body. As early as 1908, Rosenow, in the *Journal of Infectious Diseases*, 1909, p.245, endocarditis was produced by intravenous injection of the respective strains from a case each of staphylococcus and streptococcus viridans endocarditis, which were clearly the result of dental infections. The combined clinical and experimental studies of Hartzell, Henrici, Gilmer and Mosby, emphasized the importance of dental foci as sources of systemic infections. For a detailed consideration of results of numerous clinical and rentgenologic studies, and an exhaustive bibliography, Duke's excellent monograph on this subject should be consulted.

Metastatic Infection.

Many facts suggest that dental infections are often metastatic from foci elsewhere than in the dental area. The observation which I have made, that bacteria isolated from the tissues in metastatic lesions show a greater affinity for that tissue than

those from the primary focus, seems to indicate that the repeated occurrence of the same type of lesion, such as pulpitis in a given case, may be the result of a blood-borne infection from one pulp to another, as well as from infection from a focus in the tonsil or elsewhere. The rather common occurrence of pulpitis during or following certain epidemics of acute respiratory diseases is in harmony with this idea. That infection of the pulp may be metastatic is shown by the fact that it occurs in sound teeth, that apical abscesses are sometimes found at the roots of otherwise normal teeth whose pulp chambers have not been perforated either by treatment or decay, and that infection is occasionally found in unerupted teeth. Moreover, direct experimental evidence that this may occur has been obtained. In a previous communication, I have shown the affinity for dental pulps and dental nerves in animals of a streptococcus isolated from the foul pulp of the tooth of a person in whom infection of a number of pulps subsequently occurred.

Danger of Extensive Extractions of Diseased Teeth.

The fact is now well known that acute exacerbations in symptoms follow the surgical removal of certain foci of infection in chronic diseases, especially those about the teeth. This is particularly likely to occur in persons with chronic disorders, who appear to be hypersensitive. The danger from the removal of too many foci at one time, in these cases, was noted some years ago when a fatal exacerbation following the removal of and curettement of a number of abscessed teeth occurred in a patient suffering from chronic arthritis.

On February 6, 1913, tonsillectomy was followed by slight increase in temperature for a day or two. On February 16th, a number of teeth were extracted, followed on the next day by fever from 102 to 105 F. for nearly three weeks, associated with pericarditis, pleurisy with effusion, bronchopneumonia, exacerbation of the joint sensitiveness, and successive crops of arythematous nodes of the skin chiefly over the forearms and legs, acute dilatation with acute multiple ulceration of the stomach shortly before death, February 28th."—Dr. Rosenow, in *Journal N. D. A.*

The sockets were curetted immediately after extraction. The importance of the gradual removal of foci, particularly in the dental area in chronic diseases, has since been emphasized especially by Hartzell, Thoma and many others. The exacerbations may be due to the absorption of toxic material to which these patients are hypersensitive, to a lighting up of a more or less dormant infection in metastatic lesions, or to a localization of bacteria that gain entrance through the traumatized area from which the diseased tissue may have been only partly removed. That such localization occurs in some instances is indicated by the results obtained in the case quoted above, and by the fact that the bacteria contained in the material expressed from tonsils or contained in extirpated tonsils, in some persons who develop temporary exacerbations, showed elective localizing power in animals. Thus, a patient with simple thoracic herpes zoster developed a gangrenous herpes zoster following the expression of pus from the tonsils containing bacteria that produced herpes in animals.

The results reported heretofore on elective localization of bacteria from foci of infection have been verified and extended. The findings warrant the conclusion that chronic foci of infection about the teeth are potentially or actually detrimental to the health of the persons who harbor them. The lesions which are more or less enclosed, and which drain only into the circulation, are probably the most dangerous and should be regarded as veritable experiments which alone or in connection with predisposing factors will sooner or later break down the resistance of the patient and produce disease. The harm from oral sepsis, according to the experiments with emulsions from the infected tonsils and with the bacteria in the pus from tonsils, may be due to absorption of poisonous bacteria products and to the living bacteria themselves. The place of localization of the bacteria, aside from the influence of a lowered resistance, local or general, from injury, fatigue, strain, improper food, bad hygiene, disease, heredity, etc., will depend largely on the peculiar infective, or the peculiar poison-producing power of the bacteria at hand.

Clinical Findings.

Let us consider the frequency of probably the most dangerous form of dental sepsis, pulpless teeth and blind abscesses. Howe, reports the presence of 40,000 abscessed teeth in an examination of 50,000 children at the Forsythe Dental Infirmary, and points out that abscessed teeth must be of little importance as a source of infection since arthritis deformans (a disease which rarely occurs in childhood) was not observed. It is to be regretted that no information is given with regard to the condition of these children at the time of the examination, for example, the number who later suffered from malnutrition, hypertrophied and infected tonsils, and adenoids leading to malformation of the jaw, defective teeth, and to deficient mental and physical development, and the number who had appendicitis, endocarditis and so-called "idiopathic" infections, fatal or otherwise, in which the teeth were not even suspected as being a possible source of these infections. Langstroth, in his studies of cases at the University of California Hospital, found chronic focal infections in 84 per cent. of ulcer patients, in 66 per cent. of subacute cases of arthritis, in 73 per cent. of the chronic cases of arthritis, and in 100 per cent. of the gall-bladder cases. The acute and subacute cases responded well after removal of the foci even to the point of absolute cure. In many of the chronic cases, the patients had less pain and no further progression of the disease. Duke, in tabulating 1000 medical cases in which the patients suffered from some form of chronic disease, found a marked degree of oral sepsis in 66 per cent. Thoma, in a similar group of cases at the Robert R. Brigham Hospital in Boston, found alveolar abscess in 88 per cent. Irons, found alveolar abscess in 44 per cent. in a series of 124 patients with miscellaneous diseases. Abscesses were present in 76 per cent. of the arthritis group and in 47 per cent. of the nephritis group. A. D. Black, found that the peridental infections, without reference to complaint, were 56 per cent. in persons under 25 years of age, 72 per cent. in persons between 25 and 30, 87 per cent. in persons between 30 and 40, 89 per cent. in persons between 40 and 50, and 100 per cent. in persons more than 50. Many of these infections

are found in teeth from which the pulp has been removed artificially and the canals improperly filled as is shown by Ulrich, who found that 68 per cent. of all artificially devitalized teeth showing apical abscesses, and that of 1350 so-called dead teeth examined, 83 per cent. were abscessed. The number of persons suffering from diseases directly attributable to these infections as well as from non-related conditions which have been cured or benefited by elimination of foci of infection in the various branches of medicine is so large as to be quite sufficient to prove the general truth of the idea of causal relationship.

Therapeutic Suggestions.

The opportunity of the dental profession for co-operation with the various branches of medicine along these lines needs no emphasis. The prevention of oral sepsis in the future with a view to lessening the incidence of systemic disease should henceforth take precedence in dental practice, over the preservation of the teeth almost wholly for mechanical or cosmetic purposes as has been so largely the case in the past. Every effort should be made for the prevention of dental infections and for the correction of those already present. Preventive measures should begin in childhood with a view to obtain perfect development of the teeth and oral cavity, and thus prevent various defects which would later lead to sepsis. This calls for the co-operation of dentist, pediatrist and throat specialist.

The principles underlying various procedures for the prevention and cure of infections of the gums and enveloping membranes about the roots of teeth may be regarded as fairly well understood and effectively applied by many. It should be emphasized, however, that the chief harm from these conditions comes from the absorption of the bacteria and their products into the lymph stream or blood, especially if drainage is inadequate, not from swallowing the infectious material, and that the infections predispose to embolic infections within and without the dental field. The correction of pyorrhea and allied conditions is, therefore, of great importance.

Infections of the dental pulp, pulpless teeth and apical abscesses are theoretically the most dangerous of the various forms

of dental foci. They are usually free from symptoms and hence unsuspected. They are situated in osseous tissue which allows no expansion. They lack drainage other than into the circulation and are exposed to pressure transmitted by the teeth during mastication. They remain active and do not heal for a period of years, and the bacteria, as shown in this study, are not encapsulated as is usually assumed, but are found in areas of active inflammatory reaction where new blood vessels form and afford ample drainage into the circulation.

On the basis of these facts, there can be no doubt that the wholesale devitalization of teeth, often for trivial reasons, and the filling of infected root-canals without due regard to asepsis, as practised in the past, results in the formation of numerous apical infections, and no doubt in much ill-health. The instances of cure or improvement in systemic diseases directly attributable to these infections and in non-related conditions are so numerous that the procedure as practised heretofore should be regarded as a veritable experiment.

It is a well-known fact in bone surgery that no amount of antiseptic treatment will cure an osteomyelitis unless dead tissue is removed and dead spaces are eliminated; if this is done, healing occurs promptly without antiseptic treatment. In the filling of root-canals the removal of every particle of pulp tissue is recognized as a prerequisite for successfully preventing subsequent infection. Is there any reason to believe that if the small amount of dead albuminous matter in divergent or tortuous canals leads to reinfection, that the larger amount in the apical region would not likewise become infected even though completely sterilized by ionization or other similar treatment? Hence, it is doubtful whether any form of medication through the root-canal, which would be applicable in routine practice, can be relied on successfully to sterilize the infected areas about abscessed teeth, and to prevent the areas from becoming reinfected. The fact that acute infections of the jaw occur not infrequently following these attempts is a further obstacle to the success of this method. Apicectomy, while no doubt successful in removing the infection in the jaw in some instances, is applicable in only a small number of cases, and as a rule

should not be attempted in persons who are ill from secondary systemic conditions. The removal of infected pulpless teeth together with the infected peridental tissues therefore, seems to be the safest and surest means available at present for the cure of these conditions. The many ingenious devices applicable to vital teeth will do much in making useful masticating surfaces and agreeable cosmetic effects.

It is becoming more and more apparent that the lack of improvement in systemic disease following the extraction of one or more infected teeth, barring other foci, may be due to the fact that the peridental infection was left or was only partially removed, and that the occurrence of acute exacerbations following extraction and curettement is commonly due to this cause. Persons who have all their teeth extracted may still harbor localized areas of infection in the jaws. Simple extraction is not sufficient. The importance of eliminating dead spaces in curing infections of bone in other parts of the body—a lesson learned during the war—lends support to the idea of the "surgical removal" of infected teeth. Removal would seem to be the method of choice in cases of extensive apical infections. If a person is perfectly well, has harbored for some years one or more devitalized teeth in which the X-ray findings are negative, there would seem to be no good reason for extraction. If, on the other hand, the person is suffering from arthritis, a heart or kidney affection, or some other form of disease for which other causes can not be found, such teeth should be removed. Owing to the reparative power of the cementum, it would seem possible to devitalize teeth safely whose pulps are sterile and whose canals may be properly filled, provided the operation is done in an aseptic manner. This should be done after the removal of other sources of infection, and only in teeth of vital importance for restorative needs. The somewhat lowered resistance to infection of the peridental tissues about non-vital, sterile teeth, may be more than counter-balanced by the removal of the pulp, since most infections of otherwise sound teeth no doubt occur through this organ. In case of beginning infection of the pulp from decay which has not yet extended into the peridental tissues, attempts at sterilization, and if necessary, removal of the pulp and filling the canal may

be justified in some instances, but not until cultures have proved that the tissues are free from living bacteria, and only if the responsibility is shared conjointly by patient and operator.

In the manner of eliminating foci of infection in the mouth and throat, the infections about teeth should, as a rule, be corrected first. Tonsillectomy as now so commonly practised before the condition of the teeth has been corrected is illogical. The lymphatics of the mouth and jaws drain into the tonsils. Some infections of tonsils improve or even disappear following the extraction of infected teeth. The unnecessary sacrifice of vital teeth should be condemned. A patient who is suffering from a serious disease of focal origin, after due consideration of other factors for or against extraction of infected teeth, should be given the benefit of the doubt even when the evidence is not conclusive that the responsible focus is contained therein. Extraction will do no harm although inconvenient at the time, while non-extraction may result seriously. Not too much should be expected from the removal of a focus, especially in chronic conditions, because a similar condition may be present in inaccessible foci and in others too small to be detected. Moreover, recovery may be made difficult by local tissue sensitivity or peculiar mechanical conditions, and living bacteria in a metastatic lesion may continue the process independently of the focal source.

The administration in guarded dosage of a properly prepared vaccine from a focus following its removal may be an important aid in overcoming the metastatic condition. But this or other forms of specific therapy can not take the place of the eradication of the focus. It need hardly be pointed out that the prevention and cure of dental and other foci of infection is only a part of the problem. The conception of the problem of focal infection must not be too mechanical, for the invasive power of the bacteria is extremely important.

Thus in the case of pulpitis, dental neuritis and myositis in which elective localization of the streptococci from the pulp of the tooth and from the muscle was demonstrated, the streptococcus having the same invasive power was found also in the nose, pharynx and stool.

The elimination of visible foci would not eliminate all systemic infections, for as the invasive power of the bacteria increases, the need for forced entrance, as occurs from a focus, becomes less marked, and thus the bacteria may gain entrance through the unabraded mucous membranes, as in the acute infectious diseases. But even here, the broken continuity from localized infections predisposes to these diseases. The importance of hygiene, of a properly balanced diet, and of the general health, and hence the co-operation between the various branches of medicine, surgery and dentistry, need hardly be emphasized.

A careful study of the clinical and experimental data now available seems to show conclusively that a sane and comprehensive effort toward the prevention and cure of septic foci in the dental and other areas will result in the alleviation of human suffering; in a better preservation of the tissues in old age, in a longer average duration of life; in increased mental and physical efficiency; in the prevention and cure of acute and chronic diseases, and through the laws of heredity, make for a sturdier race.—*Dental Register.*

WILLIAM OSLER—A MEZZOTINT

I was transported in my dreams
While sorrow slumbered close to time.
To me once more the bells' soft chime
Came floating o'er fair brimming streams,
While all around the gentle breeze
Strewed blossoms of the flying days
On meadows steeped in summer haze
Beneath the broad and kindly trees.
Oxford with all her "brooding towers,"
Her battlements and turrets fair,
Brought back the friends who gathered there
In other days, in other hours.
And then the very air was fraught
With higher impulse and the earth
Seemed freed of pain and of its "dearth

Of nobler natures," and I thought
This place is Eden.
One man there was, the rest among
With gleaming eyes and eager tongue,
Teacher, not pedagogue, he seemed:
His laugh was such a vivid laugh
And one behind its ring could hear
The mind harmonious and clear,
The human heart beneath the chaff.
Master of all, true knight and bold:
A thing to marvel at and prize
That one so learned, was so wise.
We hearkened to his words of gold
And wandered to his treasure-room,
The sacred spot where that great mind
Dowered its riches on mankind.
There in the twilight's deepening gloom
We wondered how one brain could know
All that he knew of Truth. . . . and more.
We saw his leathered tomes a-row
And as we conned the titles o'er
We found the Aesculapian art
Usurped not all the books, but some,
Those marked most with a loving thumb,
Displayed upon them names more sweet,
While deep within their pages bloomed
The flowers of bye-gone days—perfumed.
And some there were that seemed to treat
With odorous words of thoughts divine
From souls of English bards outpoured.
Not far aloof, a treasured hoard
Where one could drink the potent wine
Of ancient volumes, dark with age;
There Locke, and Hooker, many more
Of varying age and varying lore,
There Richard Burton's studious page,
And in a post of honour, lo!
A gallant man whose thunderous prose

Will echo to the end of days,
Sir Thomas Browne, in splendid row.
Fifty they were, nay, sixty strong.
Then with caressing hand and voice
The Doctor took from out the throng
A single volume of his choice
And as he turned its page would read
Some solemn sentence, then would meet
Some quaint and curious conceit
Or old-time counsel of a breed
Surely immortal.
His eyes would smile at quip or jest
Before he laid the book to rest
And parted from it lovingly.
But even as he smiled it seemed
That books and book-shelves dimmer grew
And Oxford faded from the view.
Then all was changed—or so it seemed—
Behold; it was the "honeyed night"
There stood a board with goodly fare
Well freighted, formed to banish care.
The candles shed their tender light
O'er fragrant flowers, faces clear,
And this was Canada, his place
Of birth—his best-loved race—
Here all was joyous, for the seer
Was still unchanged, and still we heard
His laugh inspired, and I ween
No fanged satiric arrow keen
Or spiteful jest that laughter stirred
But shafts, all poisonless, of wit
And subtle humour that were fired
By him we fervently admired.
All those that at the feast did sit
Uplifted were, and proud to clasp
The hand of him we loved, the man
Of nobler work, of nobler plan.
We felt the fine soul in his grasp,

His genius, his simplicity.
And this was our felicity
That he could cross the seas and fling
His mantle like a radiant thing
O'er those that breathe less generous air
And show this miracle, that Fate
Could make so great a man—so great,
And prove the breed our Land can bear.
The heights he climbed must be refused
To lesser men, and given to those
In whom authentic genius glows
With god-like vision. . . . so I mused
And pondered till the air was filled
With mystery. . . .
Then all was stilled.
Up through the flowing tide of dreams
My spirit swam to reach the light.
Sorrow clung close, in robes of night,
And through her veil I saw the gleams
Of crystal tears of memory.
The tears of all humanity.
Then music swept from mystic strings,
'Neath whisperings of mighty wings:
And Time whose face was as a star
Held in his hand a jewelled wreath
That every sorrowing heart beneath
Might know and worship from afar.
That every tear-dewed eye might see
His crown of immortality.

MARION OSBORNE.

THE DOCTOR'S THERE

When in the cottage blessed with Love's sweet store.
A babe is born and o'er the rustic door
Is hung the crown of motherhood, and fair
Is all within—the Doctor's there.

When 'neath the pall of mystic Death's weird spell
A mother's heart is broken by the knell
Of all that's dear, and on the stair
No baby feet—the Doctor's there.

When virtue flees and breath of ruthless lust
Eats into the soul as does the gnawing rust,
When no one else with her the shame will share,
With mother's touch—the Doctor's there.

Where blossoms Life's sweet Bud at blush of day,
Where breath of withered rose at eve-tide steals away
On the South wind—in joy and care,
An uncrowned king—the Doctor's there.

L. B. McBrayer, M.D., Asheville, N.C.

THE MEDICAL OFFICER

By R. G. H. Osborne.

Between the living and the dead, the Army surgeon stands,
And life, oft hanging by a thread, lies in his skilful hands:
A soldier at his country's call, he draws no faltering breath,
But fights that mightiest foe of all, the final victor, Death!

To meet so dread a foe he brings the true physician's mind,
Which holds, above all other things, the reverence for mankind:
Did his own brother wounded lie, tho' toward him he would
speed,
He would not pass a foeman by, if his the greater need.

Within his breast, to duty true, no shrinking spirit dwelt.
Oft has he served, and fallen too, beneath the screaming shell;
The hope to succor and to save, his one ambitious thought:
If honors come to mark the brave, they come to him unsought.

To snatch from ravening Death his prey with dauntless soul he speeds,
And few the words he has to say—his pity speaks in deeds!
The life within him, tense and clear, from brain to finger runs,
Nor does he heed, nor even hear, the roaring of the guns!

This son of science, rarely found applauding crowds before,
For whom no trumpet-blasts resound, too many oft ignore;
Yet he, upon the storm-swept plain intent alone to save,
And wounded scorning all his pain, is bravest of the brave!

R. H. G. Osborne, Jour. Amer. Med. Asso.

TREATMENT

The old country practitioners are strong on treatment Hutchison, of the London Hospital and medical school gave a fine lecture on the subject recently, as reported in the *Practitioner* for September, 1919.

Hutchison maintains doctors should have a definite plan of treatment, founded on what is necessary to accomplish for the relief of the patient; and one must not easily be diverted from this plan. The plan should be simple, so that the patient will not complain that the treatment is worse than the disease. No patient must be asked to do impossibilities—his financial condition must be kept in mind. The directions must be exact—better to be written down. Treat the patient, not the disease. The old family doctor made his success by following this rule, and can observe it better than a consultant or specialist can.

Systems of treatment should be avoided. The treatment must be individual. Fads, like the devil, should be avoided. Sir James Paget, one of the wisest of practitioners, held that as one grew older the more he tended to write the same prescription for everything—the beginning of faddism.

Treatment ought to be conservative. The old treatment has stood the test of time; one should be sure that the new is going to be better than the old before being adopted. One should

"prove all things and hold fast to the good." We can learn something from all sorts of irregular practitioners. Treatment may be radical or symptomatic. The radical is represented by surgical measures such as opening an abscess; and the administration of quinine to kill malarial parasites. The treatment of the symptoms is comparable to the cutting down of a tree, branch by branch.

Again, treatment may be expectant—allowing nature to work the cure, the doctor standing by prepared to intervene if satisfactory progress is not made.

Remedies may be rational orempirical; thyroid extract, where there is adeficiency of throid gland, represents the former sort; the treatment of malaria by quinine was empirical until the parasite was found, when it entered the realm of rational remedies.

In treating a patient one must think first of the general management of the case—the placing of the patient under the best possible conditions to fight the disease. Diet stood next in importance. The menu should be written down. Before ordering any particular article, one should ascertain if it agrees with the patient. No article should be forbidden, with good reason. If an article disagrees with a patient it may not be wise to cut it out altogether—especially in chronic diseases. If you do so the patient's nutrition may suffer. Any changes in the diet should be made gradually.

In respect of drugs, they may be necessary if only for psychological reasons. One should know exactly what he can do with drugs, and having made up his mind must use them boldly, Use one drug at a time, if possible. The prescription ought to be made as palatable as possible.

For instance, in prescribing a drachm of magnesium sulphate, by adding twenty minims of fluid extract of cascaria, it works faster. To prevent the griping add fifteen minims of the tincture of ginger, and to convey it pleasantly add an ounce of peppermint water.

Latterly, physical methods have been coming largely into use —massage, baths, electricity, special exercises. Climatic treatment might also be considered as a therapeutic measure

Every big hospital should have a psycho-therapeutical department. Psycho-therapy plays an important part in all treatment. "He is the best physician who is the best inspirer of hope," said Coleridge. Suggestion cannot be taught: it is part of a man's personality—a kind of virtue that goes out of one when dealing with disease. The power of impressing on patients a belief that they are going to get well is one of the secrets of the physician's success.

"There are men and classes of men that stand above the common herd; the soldier, the sailor, and the shepherd not unfrequently; the artist rarely; rarelier still, the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilization; and when that stage of man is done with, and only remembered to be marvelled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race. Generosity he has, such as is possible to those who practise an art, never to those who drive a trade; discretion tested by a hundred secrets; tact, tried in a thousand embarrassments; and what are more important, Herculan cheerfulness and courage. So it is that he brings air and cheer into the sickroom, and often enough, though not so often as he wishes, brings healing."

-Robert Louis Stevenson.

MENTAL SUNSHINE*

The sunshine and clear skies of Canada undoubtedly have an influence in sustaining that cheerful outlook which is characteristic of most Canadians. Everyone is more or less affected by influence of this kind, finding it an effort to work on a gloomy day. It is beneficial as well as enjoyable to get the sunshine into one's system. There are other influences which produce an effect similar to that of a sunny day. Tobacco, for instance, is a sort of mental sunshine to the pipe-smoker.

*Publishers' Department.

ROSE AVENUE HOSPITAL, TORONTO*

A PRIVATE HOSPITAL provides homelike qualities often unknown in large public hospitals, and the closer personal attention usually characterizing the smaller tends to become lost in the complexity of the larger institutions. To assist in meeting the existing demand for private hospital space, Rose Avenue Hospital, situated at 258 Wellesley Street, has been equipped to accommodate sixteen patients, and its operating room and wards have been placed at the service of any members of the medical profession. Those more directly interested in its administration aim to combine courtesy with efficiency in meeting the requirements of the profession at rates as reasonable as would be consistent with good service. Dr. Arthur Thomson, Superintendent. Phone, N2839.

CARE IN THE PRODUCTION OF MILK*

MANY cases are on record showing that sickness and disease have frequently been the result of carelessness in the production of milk.

Fortunately, however, recent years have witnessed marked improvements in the methods of handling milk. In fact, one Toronto dairy—The Farmers' Dairy—has since its inception, done everything in its power to safeguard their customers. They recognize what an important part milk can take in the maintenance and improvement of public health, and act accordingly.

The care exercised by them begins right at the source of the supply—the cows. These cows are kept on the clean, modern farms of the farmer-shareholders, and are regularly examined by the dairy's inspectors. When the milk arrives at the dairy—a dairy equipped with the last word in milk machinery, it is scientifically pasteurized in the "Jenson Coil Pasteurizers." The processes of cooling and bottling the milk are given the utmost attention by the Farmers' Dairy.

Such methods as these should be encouraged by every physician, for they contribute materially to the successful promotion of the crusade for better health.

*Publishers' Department.

AN IDEAL RESORT FOR CONVALESCENT PATIENTS*

Physicians have frequent opportunities of referring those convalescing from illness to a resort where they can quickly recover their old-time vigor and enjoy an almost ideal climate, 2,500 feet above sea level. Such a resort is Virginia Hot Springs, just one night out of New York. The management have spent a huge sum of money on this choice spot in "Old Virginny," and are anxious that the Canadian medical profession should continue to refer cases there, as they have done in years gone by. The Homestead Hotel is one of the handsomest houses in America. It is built of solid brick, containing 500 guest rooms, with many parlor suites and 300 private baths. It is spacious, dignified, quiet and restful, with magnificent mountain views on every side. It is no exaggeration to say that Hot Springs means the Homestead Hotel. The Company owns 5,000 acres surrounding the hotel, so that physicians can understand that their patients have every opportunity of enjoying outdoor life and regaining thereby their normal strength.

The dominant factor making Hot Springs world-famous is the cure in which the climate as well as the water assist. The waters are conducted by gravity to the bathhouse and distributed fresh from the ground to the bathing apartments on different floors without loss of heat or its increase by artificial means, and fully charged with all their gases and other health-giving qualities. At none of the celebrated places in Europe, and at no other springs in America, is the temperature prescribed for hot baths that at which the water actually emerges from the earth in the natural springs.

The springs are beneficial, not only for bathing, but for drinking. Besides the hot springs, the effects of which as drinking waters are pronounced, there are magnesia, sulphur, and soda springs within the grounds, and alum water from a spring not far distant. The water from the soda spring comes strong and clear from the ground at a uniform temperature of 74 degrees. Physicians should address for full information Christian S. Andersen, Esq.

*Publishers' Department.

The Canadian Journal of Medicine and Surgery

A Journal published monthly in the interests of Medicine and Surgery

Vol. L. TORONTO, SEPTEMBER, 1921 No. 3

Editorial

THE GLOVER REPORT

We have a copy of a leaflet signed by Dr. Glover —addressed to no one—giving a crude and amateurish statement of the pathology of cancer in ill-written English—and stating he has been " able to culture cancerous cells, and from the culture " to obtain the isolated cell. "Also, from the cancerous cell," he says, " I have isolated and cultured an intra-cellurar organism which I found to be entirely confined to and present in every known type of cancer."

He goes on: " I took cultures of these organisms along with cultured cancerous cells and injected them into the jugular vein of a horse between the ages of *seven and nine years, of the roan type* (the italics are ours) . . . and I was able to procure a serum . . . which I injected intra-mus-

cularly into patients in the advanced stages of cancer, and noticed that it has a specific action on every known type of cancer. It does not injure healthy tissue, and I found in the majority of cases it eliminates the toxins of cancer from the body, so that the patient is brighter, the color improves; also the hemoglobin and red cell count. They gain in weight and the growths disappear. Up to the present I have apparently cured cancer of the face, eye, nose, lip, mouth, tongue, stomach, bowel, bladder, breast, and uterus."

. . . .

Dr. Glover (1) refused request of the committee to visit his laboratories, to examine his cultures and experimental material; (2) to demonstrate his ability to culture cancer cells and organisms; and (3) to demonstrate his ability to procure cancer by inoculation or to immunize animals against it.

The Committee examined 12 of 15 cases selected by Glover, and has asked permission to re-examine them; inquired of medical attendants of patients' confirmation of diagnosis and a statement as to the clinical condition of the patients applying for treatment; obtained a list of patients in St. Michael's Hospital which had received at least five injections of serum; asked Dr. Glover for a complete list of cases treated by him privately, with notes; sought information from Fellows of the Academy, hospitals and doctors' reports of results of his treatment.

The Committee found no evidence to warrant the

hope that a specific coure for cancer has been discovered by Dr. Glover, or that a cure has been produced by the serum in any case definitely established as cancer.

The Committee admits that good results are obtained in cases supposed to be cancer, but in which the nature of the condition has not been established on incontrovertable evidence; temporary improvement frequently occurs after removal of mechanical obstruction by operation or by sloughing of a cancerous growth. Retrogression or even spontaneous disappearance may occur in cases of cancer. It is not uncommon to get considerable temporary symptomatic improvement apart from any treatment. Psychic influences are of great importance. . . . "Osler has described a case of cancer of the stomach in which the mere visit of a consultant of sanguine temperament, though poor judgment, whose assurance of the patient that there was no possibility of cancer, resulted in a disappearance of all the symptoms and a gain of eighteen pounds in weight."

The Committee adds: "The data which your Committee has been able to obtain have not convinced it that the results of treatment obtained by the use of Dr. Glover's serum are better than those obtained by similar methods introduced by others, and which have ultimately disappointed the hopes entertained of them.

We give only this summary of the report, seeing

that it appeared in full in the daily press, so that most of our readers perused it all, and have come to their own conclusions.

The report gives evidence of a careful consideration of Dr. Glover's claims, a systematic study of them and a clear statement of findings. It is unfortunate, and reflects on Dr. Glover, that the Committee was not allowed access to his laboratories to study his experimental work. We hope the Committee will report its further findings on the twelve alleged cases of cure. By seeing the doctors who referred the cases and securing their evidences of diagnosis, and by a study of the present condition of these twelve patients, some more light might be thrown on the subject. So far as we can see this is the only chance left for further debate.

POST GRADUATE WORK

It is gratifying to note that post-graduate medical study in Toronto is now under way. Three courses are being given this summer:—

1.—*Combined Course in Medicine and Surgery.*

Six hours a day for a week will be devoted to these subjects.

In Medicine a choice is given of

(*a*) Neurology (20 students).

(*b*) Diseases of the Cardio-vascular system (20 students).

In surgery, the subject of Fractures will be covered, stress being laid on modern methods of treatment (40 students).

2.—*Obstetrics and Gynecology* (10 students).

Six hours a day for a week will be devoted to instruction.

(*a*) Clinical Obstetrics, including pre-natal work, pelvimetry and the conduct of labour.

(*b*) Clinical Gynecology, including diagnosis and non-operative treatment.

3.—*Ophthalmology and Oto-Laryngology* (6 students).

Six hours a day for a week will be devoted to these subjects.

(*a*) Ophthalmology, including the use of the ophthalmoscope and retinoscope, squint and glaucoma.

(*b*) Oto-Laryngology, including the examination of the ear, nose and throat for the general practitioner.

The course given last summer was so successful that the University authorities have enlarged the programme. Next year, no doubt, more courses will be given and to an increasing body of students.

THE CANADIAN JOURNAL OF MEDICINE AND SURGERY, for some time past, has strongly recommended the establishment of post-graduate work in Toronto, and is pleased to see that the undertaking is proving a good success.

NORMAL TEMPERATURE

INASMUCH as the clinical thermometers of English make differ from those of American make, as to the normal point, it is advocated that some agreement should be arrived at as to what is normal.

Rudolph suggests a bar instead of an arrow as a marker to cover the space upon which normal temperatures are recorded on the glass tube.

The Academy of Medicine discussed the subject the other night, and it was held by some speakers that normal temperature might vary from 96 to 99. Others contended that 99 indicated fever in persons whose prevailing temperature ordinarily was lower than 99.

It would be well that extensive observations be made on this subject, both in Great Britain and also in America, in order to arrive at the conclusion of what the normal temperature limits are.

Canadian Journal of Medicine and Surgery

Toronto Canada

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The Principles of Surgery and Surgical Pathology

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Reprints, including halftones, etc., supplied authors at net cost.

Original Contribution

THE EFFECT OF SUNLIGHT UPON WHITE MEN WITH SPECIAL REFERENCE TO THE CANADIAN WEST

By Chas H. Huestis, M.A., D.D., Red Deer, Alta.

I must apologize to you, gentlemen, for inflicting my views upon you. Being a layman I am not able to discuss the matter in hand with the technical efficiency to which you are accustomed and doubtless you will be ready with criticism when I am through. I do not hope to convince you all of the truth of my thesis—especially those of you who happen to be over forty years of age. I am myself, however, convinced of the general truth of my theory, and I believe the future experience in this country will bear me out. The matter is one of first importance, as it seems to me, to our western civilization.

Perhaps, I may begin by stating the movement of my own mind in the development of the thesis of this paper. I had spent a number of years in the semi-tropical islands of Bermuda, and I was again and again impressed with the similarity of much of the West with what I had experienced down there. And yet the climates of the two places were so dissimilar. One day, while reading an article upon the effect of sunlight upon protoplasmic matter, it flashed across my mind that in this direction lay the solution of the problem. Though the West differed from the tropics in climate, yet they were alike in one particular, namely, that both were regions of almost constant sunshine. "Sunny Alberta." How we have loved the name, and gloried in our sunny skies. And well we might, for are they not the creators of our wealth? But what if this sunshine, which is the promise of our harvests, is at the same time the source of

many of our bodily ills? If white men were not able to live permanently in the sunny lands of the South, might they not be forced to abandon the equally sunny lands of the North? Acclimatization had not been possible there, would it prove possible here?

In discussing this question I found the literature very scanty. Von Schmaedel had made an interesting study of the pigmentation of the skin of races living in sunny countries. We have also an ever-increasing literature upon the effects of light upon the human organism, and especially of late as to the therapeutic effect of radio-active substances. This, it has been learned, is due to the chemical effect of the ultra-violet rays upon the cells in the way of stimulus. Finsen proved that the alterations to the skin which occur when exposed to intense light were due to these rays, and by their application he was able to destroy certain *foci* of disease. This stimulated further study of the therapeutic action of light—particularly the fruitful researches of Bernhard and Rollier as to the effect of light upon internal maladies. The study has been still further carried on by Van Tappleiner who discovered that the effect of light rays upon living organisms was modified by the presence of dye stuffs—infusoria perishing when the dyes were dilute, but remaining alive in denser solutions. Dr. Fritz Schans in a recent article published in the *Scientific Monthly* (January, 1920) has demonstrated that the form of plants is altered by light waves of short length and chiefly by ultra-violet rays. He thinks the colors of plants have for their function the selection of rays beneficial to growth, and not to charm insects and bees to assist them in the process of fertilization, as is the popular idea. They act, he says, as sensitizers in the same way as the chlorophyl of green leaves, and they also act as a protection against rays that would be harmful. Two Frenchmen, Bohn and Marre, have written upon the effect of sunlight upon white men, and their theories have made a profound impression in Europe. But, perhaps, the most important contribution to the subject is a book I found in the course of my investigation, entitled, "The Effects of Tropical Light Upon White Men," by Major C. E. Woodruff, U.S.A. I am particularly indebted to this investi-

gation of the subject in the preparation of this paper, though I had reached my conclusions before I read this book.

I will discuss the following points:

The effect of light waves upon living organisms.

The pigmentation of the skin of races whose habitat is under sunny skies as a defence against the effect of sunlight.

The pathology of sunny lands inhabited by white men.

Some practical suggestions as to the habits of white men who desire to live in the West of Canada.

1. A brief resume of our present knowledge of light rays may be helpful. You are familiar with the new conception of matter which has arisen as the outcome of the study of certain radio-active substances. Instead of the old conception of matter as composed of invisible, metaphysical, units called atoms, the idea now holds that atoms themselves are divisible, and are composed of smaller particles called corpuscles or electrons, which dash to and fro within the atom and revolve with inconceivable rapidity. You know how under the conditions of a Crook's tube an electric spark will produce dis-association of these corpuscles, which rush forth in a stream and produce ether stresses which are known as *cathode* rays. Certain substances such as radium seem to possess the power of giving forth a constant stream of corpuscles, producing stresses which are known as *Becquerel* rays. We use the word "stress" because it seems to be what is produced when a stream of corpuscles is started or arrested—a stress is given to the ether which is carried outward at the velocity of light. These stresses follow one another at intervals, and the length of these intervals—or waves, to use the old term—constitute or determine the character of the wave. It must not be forgotten, however, that these waves are not to be conceived as movements of the ether, which is an immovable substance, but simply a stress of the same, as when a hammer falls upon an anvil imbedded in concrete the stress is carried from top to base, though the anvil itself does not move.

Now the slowest and longest variety of waves that have been discovered are called *Hertzian*. These, as you know, are made use of in wireless telegraphy. Waves shorter still affect the body as heat; shorter still they have the power of affecting the

retina of the eye and producing what is known as the consciousness of colors—red, yellow . . . . violet. Beyond the violet there are waves still shorter which, though they do not affect the retina consciously, produce effects upon certain chemical substances and are used in photography. They are also of incalculable value in the elaboration of the energy of plant life.

Some years ago certain rays were found even shorter and quicker than the actinic rays of the sun—so short, indeed, they proved to be that they can penetrate certain substances without disturbing their corpuscular arrangement. These were called by their discoverer, Roentgen, " X-rays." Later M. Curie and his clever wife made discoveries in the powers of radium, and found that this substance emits particles which flow in fairly slow streams but which impart stresses of great velocity and rapidity.

There is no need that I do more than point out to you these facts which are so familiar; but let us not forget that in all these different varieties of light waves, we do not have anything *new*. All are really of the same kind, and are produced in the same way, namely, by changes in the motions of the corpuscles which compose all kinds of matter.

Coming now to consider the effects of light rays upon living organisms, you are familiar with the therapeutic value of certain kinds of rays. You know how effective they are in reducing growths of a malignant nature upon the surface of the body. They also seem to be able to penetrate some distance beneath the surface of the body, but there they rapidly lose their efficiency. You know that they have an exceedingly stimulating effect upon living organisms, and are the source of all life upon our planet. You also are familiar, with the fact that exposure to the direct rays of the sun, especially in hot climates, is prejudicial to health, and often fatally so. We know that white men have not been able to make the tropics their permanent abode. More than this, we are quite familiar with the effect of sunlight upon bacteria, which succumb more rapidly to this than to any known antiseptic, so that perhaps the most effective disinfecting agency is the exposure of a room or garments which have become in-

fected, to the rays of the sun for a time. No bacteria are able to stand for long this bombardment; they love darkness rather than light! This is due to the extreme irritability of the protoplasm of which bacteria are largely composed. Protoplasm is chiefly nitrogenous, and there is no substance so easily set off as nitrogen, which, as has become familiar to us in the recent war, is the basis of our most powerful explosives..

In the temperature of the human body protoplasm seems to function most readily—but when the temperature is raised a few degrees trouble ensues, and unless the rise of temperature is arrested and reduced the organism perishes. You are acquainted with the destructive effect of radium. M. Curie has asserted that a pound of radium in a room would probably kill every one present by the power of its bombardment. A small particle of radium carried in the vest pocket produced a sore in the side which for weeks resisted every effort to heal.

Now the short, or actinic, rays of the sun are very similar to those of radium, and are also destructive, as seen in sunburn, glacier burn, and sunstroke. In the last named it is probable that heat combines with light to produce brain paralysis, but this is not so with glacier burn.

From the study of the effects of sunlight upon living organisms we find them twofold: 1.) The first effect is metabolism —increasing the oxygen carrying capacity of the red blood corpuscles. (2.) But when the process is long continued we hace actual destruction of the protoplasm and the derangement of the molecule. The latter is also the immediate effect where protoplasm is not protected by some aqueous medium.

The metabolic effect of sunlight is most favorably studied in plant life. We must remember, however, that plants are the true children of the sun, and we cannot determine everything regarding the effects of sunlight upon animal life by studying its effects upon plants, but we can learn something. In the marvellous chlorophyl of the plant we see manifested the power of storing up energy of the sun's rays, energy that later the animal makes use of. In all plant life we find adaptive arrangements which have for their end the protection of the plant from the destructive effects of the sunlight. Every gar-

dener knows how necessary it is for some plants to rest awhile in the darkness in order to a sturdy and vigorous life. The plant also seems to possess the power of "stepping down" rays that might prove hurtful into forms more congenial, in some such manner as the transformer steps down the dangerous electricity on the mains so as to protect our dwellings. It must also be remembered that while the protoplasm of plants and that of animals are the same, the function of the plant is really to store up energy so that it may be of use to animal life. The plant must have sunlight in large quantities, it is necessary to its growth. But to man and animal life it is not so necessary. Animal life thrives upon very little sunlight, or none at all. This is, of course, heresy in the face of the common notion as to the blessing of sunlight; but it is very doubtful whether sunlight is *directly* beneficial to animal or human growth and development; and too much of it is certainly harmful, especially when nature has not provided protection against it, as it is with the colored races and with some birds and animals which have sunny places for their habitat. Since this is heresy let us think about it for a little while.

It is interesting, in the first place, to remember that animal life is naturally aquatic. Human life begins in an aquatic medium, and at a certain period of prenatal life is equipped with gills. The rhythms of life seem to point back to a time when the effects of the tides were felt as vital stimuli. The majority of the cells which compose the body are aquatic in habit and marine at that, requiring a saline solution in order to vigorous existence. Now water absorbs the ultra-violet rays of sunlight, and thus protects the cells which could not otherwise exist. The liquid in which the brain literally swims, is not simply nutritive, it is also protective, like the hair upon the scalp, from the destructive actinic rays.

It is interesting to consider further, that most animals, like the cat, are nocturnal in habit, passing the day in dens and the hollow of logs and trees, in holes in the ground, and coming out at night. This is true also of the natives of sunny climes. The negro is by nature a nocturnal animal, preferring to spend the day in sleep and coming out at night to sing and dance by the

light of the moon. Animals that live in the daylight are protected by fur and feathers and the pigmentation of skin from the sunlight, the parts most exposed being darker than the rest; while naked animals like the rhinoceros and the elephant, have a dark skin. Black ants live in the sunshine and white ants come forth at night. Ants place their white eggs in the sunlight for a short time every day, but when the sun becomes oppressive they remove them to their nurseries.

All these instances, and they might be largely multiplied, prove that nature and instinct protect animal life from too great sunlight, indicating that while small quantities of sunlight are doubtless beneficial, though it is probably its warmth that is the attraction, in larger measure it becomes hurtful and even positively fatal.

2. When we pass from animal to human life we find a new factor presenting itself, namely, *reason,* which makes it difficult to prophesy much from the lower standpoint. Reason modifies instinct and often flatly contradicts it. Men have most of the instincts of the animal—and then some, but they will pursue lines of conduct contrary to both instinct and reason if these lie in the path of desire.

However, we find that when we study the life of mankind with reference to our theme, that both nature and reason combine, the one to protect, and the other to seclude him from the rays of the sun. As we study the distribution of the races of mankind upon the face of the earth, one fact stands out prominently, namely, that nature has provided that the skin of mankind is dark or light in proportion to the sunniness or cloudiness respectively of the land which is his true habitat. The degree of heat seems to be immaterial, for we find that both Arctic natives and those of the tropics are equally dark complexioned, the former for protection from the reflected sun glare, the latter from its direct rays. Only in cloudy lands do we find white men at home. This fact may be formulated into a law of whiteness, namely, "*The whiteness of a people is in proportion to the cloudiness of the skies under which they live.*" Cloudy and foggy lands are, and have ever been inhabited by big blonds; sunny lands by little, dark men. Compare the big

yellow Swede with the little dark Italian. Think of the immense amount of virile force and intelligence which has come from the fogs of Ireland and the north of Scotland to aid Britain in her conquests of war and peace. The reason why men in sunny lands are dark is, of course, because the dark complexion cuts off the actinic rays of the sunlight which are so dangerous to animal protoplasm.

It would seem that we shall have to revise our old ideas as to the unvarying benefits of sunlight, at least for white folks. In the earliest days our ancestors followed instinct more than we do now—and were more robust—they avoided the sunlight and spent as much time as possible in the shade. And this is the case to-day with people of little culture; in spite of the doctors they persist in darkening their homes. A great deal of the eye trouble which is becoming prevalent among children is due to too great exposure to sunlight. The instinct of the mother is to put her baby for his morning nap in a quiet darkened room, until some doctor gives orders that the veranda or the door step is the place. Then you have a child stimulated to an activity and development far too rapid, and later on anemia and arrested development.

The custom too of placing hospitals so that every room possible is flooded with light is not good therapeutics, as it seems to the writer, and many a patient would make more rapid convalescence if shielded from the irritating rays of the sun. Were it not for autohypnotic suggestion the recovery would be more retarded still. The patient has been made to believe that "sun baths" are the great thing, and "belief" helps, as the Christian Scientists have proved. But the truth would seem to be that while sunlight should be permitted to bathe every sick room for some time during the day, provision should be made by means of Venetian or other blinds or shutters, for shutting it off most of the time. Fresh air is imperative and should be provided by forced ventilation.

I do not think it will be necessary for me to spend more time in seeking to demonstrate the truth of the law of whiteness given above. There is another fact equally demonstrable, and that is that white men have never been able to permanently

live in sunny countries. This is a large question involving the migrations of the race through all its history; we have not time to go into the question. But think of India. This is a sunny land which has been ruled by white men for some generations. But no white man dares live there for any great length of time, nor does he attempt to bring up his children there. If he does so they quickly wilt. There is no third generation of whites in India, I am told on good authority.

Of more interest to us is the presence of white men upon the American continent, especially those parts of the continent most exposed to sunshine. The natives of this continent were dark and red men. The people who now occupy it have come mostly from Europe, the more aggressive and progressive from northern Europe which is cloudy and the habitat of blonds. Under the sunnier skies of America there has been developed an aggressive force unparalleled in the history of the world—so much for the stimulus of sunlight. There has also at the same time been produced a new disease—or rather a new phase of an old one—namely, *Americanitis*—so much for the too great stimulation of sunshine. It is not hard work that breaks down people who live in Western America and Canada. Hard work is wholesome—most people do not do enough of it. It is nerve exhaustion due to over stimulation from sunlight. Of course, there are other causes—the artificial life of modern times, etc., but I am persuaded that the chief cause is as indicated.

The mortality of blond people has been much greater in the United States than of dark, so that the continent is being peopled by dark men; these survive, the others go down, or become unproductive, and have no or few descendants.

The first feeling on coming to Sunny Alberta from the far east is one of increased well being and of greater inclination to activity. New comers exult in the climatic conditions and write home enthusiastic letters about it. But after a few years they begin to feel the effects of this constant stimulation. The women break down more quickly than the men, as we should expect. It is known that suicides and insanity are more common during bright months of the year than during the dark. School teachers in the west tell me that they dread the sunny days,

for while the children are brighter and quicker, they are much more hard to manage than on cloudy days—as we should expect again.

The remarkable success of sanataria on the Atlantic coast may be partly explained by the comparative absence of bright sunlight due to cloudy skies, and the consequent restfulness; and, perhaps, the most important part of the Weir Mitchell rest care is the removal of the patient to a darkened room. Careful studies made in the sunny States of Western United States reveal a great prevalence of neurasthenic and apeptic conditions, and this is true of my own and other's observations in Alberta. These are usually greatly helped by a sojourn at the Pacific Coast, where the clouds, like a "divine umbrella," give the sufferer relief. This may also explain the instability of the peoples of the West, where all sorts of vagaries, political and religious, seem to have their origin. The Britisher, who seems to have no nerves to speak of, takes his morning plunge in ice-cold water and goes forth to conquer the work with a codfish expression on his face, and confirmed indisposition to hurry; but he will stand more than your nervous, high-strung American, who produces results while the Britisher is thinking over what to do next.

Some years ago Dr. Clouston, one of Scotland's greatest alienists, visited America, and while there said some things worth remembering.

"You Americans," he said. "wear too much expression on your faces. You are living like an army with all its reserves engaged in action. The duller countenances of the British population betoken a better scheme of life. They suggest stores of reserved nervous force to fall back upon, if any occasions should arise that requires it. This inexcitability, this presence at all times of power not used, I regard (said Dr. Clouston) as the great safeguard of our British people. The other thing in you gives me a sense of insecurity, and you ought somehow to tone wourselves down. You really do carry too much expression, you take too intensely the trivial moments of life."

To the same end was Herbert Spencer's address at a dinner given in his honor as he was leaving the United States some years ago. He took for his theme "The Gospel of Relaxation"

and preached a sermon like that of Clouston above. But neither the alienist nor the scientist saw or mentioned the chief cause of this intensity—this "bottled lightning," as some one has called it, kind of personality which characterizes the American people, and the Canadian people too. It is climatic, and is due chiefly to the fact that a race of men is attempting to live and develop under skies to which they are not fitted, owing to their white skins. Professor James says that Americans must cultivate the habit of relaxation or perish, and he is right in the opinion of the present scribe. Instead of strength we are cultivating what Clouston calls a sort of "irritable weakness," which produces results rapidly, but at an awful cost. The problem is an important one and demands earnest study.

It has been stated that the death rate in the U. S. increases with the amount of sunshine, but I am not able to corroborate this statement. But I am informed that consumptives in the later stages of the disease, who come to the west go off with great rapidity, and physicians of California have warned eastern doctors not to send such patients out there. There is also a growing conviction that some nervous weakness is one of the predisposing causes of tuberculosis, and this sunshine can only intensify. Of course, here again the complexion of the patient has its part in the problem, and it is as important, as some one has put it, "to know what sort of a patient the disease has got as to know what sort of disease the patient has got."

But I need not pursue the matter farther. I have placed the subject before you to the best of my ability, for your consideration. I believe it to be worthy of the same, and I hope some one more competent than I will carry the investigation to completion. I shall close with some practical observations.

4. Let us keep carefully in mind the two-fold effect of sunlight upon the human organism: First, increased metabolism and consequent larger excretion of carbonic acid; next, nervous exhaustion. Remember also that blonde men and women suffer more than dark from the stimulation of sunlight. What then are the practical conclusions as regards conditions of life in Western Canada?

Here we live under the sunniest skies in the world, outside extremely arid regions which are unpopulated, or scantily so. It is true that the effect of the sun's rays is moderated by the latitude and also by the altitude of our west land, but this is true only of the longer rays of the sunshine. Of the shorter, actinic, rays we get the full benefit, and these are the ones so destructive of protoplasm. Besides our altitude produces more rapid heart action, which helps on metabolism. Can it be that what has proved true of the inability of white men to colonize permanently other sunny climes in the past will find an exception here? I cannot see how this can be loath as I am to come to this unsatisfactory conclusion. Indeed, you doctors are finding the truth of my conclusions in your practice every day. You are meeting, so some of your number inform me, with neurasthenic and other conditions almost entirely due to loss of nervous vigor. Uric acid conditions seem to be especially prevalent, and exceedingly stubborn to treatment. The etiology is simply inability on the part of the nervous system to control the chemistry of the body. And this is complicated by the instinct to seek large nutrition with the consequent overloading of the digestive organs. Anything which tends to lower the nervous tone is a menace to the entire system, and will manifest itself in the weakest part of the organism. So that many complaints whose origin is obscure are probably due to lack of nervous vigor, due to excessive stimulation from sunlight.

Personally I have come to the conclusion that white men will not be able to permanently colonize the West of Canada outside British Columbia, west of the mountains. In two or three generations they will have learned their lesson. The only extenuating fact is the marvellous productivity of this country which will make it possible to get out after having made "our pile."

Meantime the practical question is, what can be done to mitigate the evil effects of sunlight so that life may be made endurable, and residence in the West prolonged. This question is of even greater importance when we consider the interest of the rising generation, whose energies are so occupied with the processes of growth and development that they are less able than

adults to withstand extra pressure. We must certainly change our habits of life from those we have been accustomed to and live more like they do in the south. We must not only protect ourselves as much as possible from the sunshine, but we must also cultivate habits of rest and relaxation. Early to bed and early to rise must be the rule with a siesta at midday. You haven't time to do that? Very well, nature will see that you take time a little later on.

Instinct has already done something to suggest accommodation to conditions of life here. The typical house of the west—the bungalo cottage, all on one flat with a wide, shady veranda—is the right sort of house to live in. Windows should be protected by green blinds or shutters which can be closed during the sunniest parts of the day, and which admit of ventilation. In the south every one retires within darkness in the middle hours of the day, and this may be necessary here, and certainly should be the rule for women and young children during the summer months.

The formation of improvement societies in all our towns and villages would be a good movement, with a chief function of encouraging and assisting the planting of shade trees about the homes of the people. Trees absorb large quantities of sunlight and thus protect the dwellers beneath them. Our remote ancestors had a penchant for trees, and spent much time in swinging from branch to branch in umbrageous shades. It must have been good for them.

In the interests of childhood certain changes in the length of the school day and the school year are certainly indicated. The school day ought not to be longer than from 9.30 in the morning to 3 in the afternoon for older children, and from 9.30 to one for the younger, with recess at noon for the former and at 11 for the latter. The school year should close not later than the first of June, or even earlier would be better, and all examinations for grade—if examinations must be held—should be in April. It is a curious state of affairs that while we hold the examinations of University students in April, when the forces of life are strong, we hold those for boys and girls when these are largely exhausted. Teachers complain of this and say

that larger numbers would pass were the examinations held earlier in the year. The month of June spent in school is a positive waste of time, which would not be so serious were it not a cause of nervous irritation and arrested development. Just as it is true that men live not by what they eat, but by what they digest, so it is true that they are educated not by what they study, but by what they assimilate. Fatigue is the deadliest enemy of the development of children—Gots Muts calls it a positive disease—and they should be carefully guarded from the same. Attention, too, which is the supreme achievement of civilized man, is impossible when the nervous forces are at a minimum.

The windows of the school room should be so arranged that the lower parts can be darkened and the light come in from above. Walls should never be white, which reflects all the rays of the sun, but green, yellow, or terra cotta. Yellow, which is so pleasing to young children, is probably the best color.

In speaking of these matters may I call attention to the recent effort made on this continent to lengthen the day by the simple, but foolish, device of putting the clock back an hour. It was tried one year in Alberta, and that was enough! It will never be tried there again. Living in a country where during the summer it is possible to read your newspaper out doors at ten at night, it would hardly seem to be necessary to increase the length of the day still more by adding an hour to the morning. It proved to be a positive crime against childhood, adding practically two hours to their already too stimulating day of almost constant sunshine. If the dwellers in eastern cities desire this sort of thing, they are welcome to it, but they must not seek to make it a National law.

Continuing our theme of the habits for the West, I would say that it might be the part of wisdom to imitate the people of the sunny south by dressing in colors which intercept the rays of the sunlight which are hurtful. Where outer garments of light color are used the undergarments might be black or yellow. Animals which have white fur or feathers have a black skin. There is no being quite so happy and contented as a negro dressed in white. The habit of some women going about

in the day time with neck and shoulders bare, or covered with some flimsy material, is dangerous, as is the increasing habit at summer resorts of going bareheaded. The umbrella and parasol habit, so common in the south, might be cultivated by us with profit in the summer. These should be made of black, green or yellow material, never of white.

In social life women should confine their afternoon calls during the summer—if they make them—to the later hours of the afternoon—say between four and seven. The color of houses both inside and out, ought to receive attention in accordance with the color scheme mentioned above. White should be avoided as much as possible. During the day sunlight should be let into the bedrooms in plentiful supply, while they are not inhabited, but the blinds should be carefully drawn on retiring to protect the sleepers from the early morning sunshine which prevails during the summer.

The warm bath should take the place of the cold plunge so much affected by Britishers, as the latter are too stimulating. The nerves receive stimulating enough without this heroic treatment. It may be that I am opposing some pet theory, but I think the facts will bear me out. The warm bath taken in the middle of the day before the siesta, or at night before retiring, will be found most restful to third nerves and will relieve many insomnias. It may be that light draughts of alcoholic drinks will be indicated in cases where the digestive functions are arrested. It is now understood that alcohol is not a stimulant, but a sedative, and is helpful at the close of a day of nervous activity. Even in "bone dry" lands it can still be obtained by the potent aid of a doctor's prescription! In the south, curry is used in large quantities to promote digestion. This is an abnormal condition, but it is to be remembered that the thesis of this paper is that the life of white men in the West is necessarily abnormal.

In cases of neurasthenia and other like conditions due to loss of nervous control, it is doubtful whether a cure can be effected here. The course in cases which I have observed of such ailments is usually as follows: First a very marked improvement, due to increased metabolism, then a return to the trouble in an

exceedingly stubborn form. In all such cases a prolonged stay under cloudier skies is the thing. Fortunately we in Alberta do not have to go far for this, for the Pacific coast is near at hand, though in the summer time this region is also a sunny one.

As to the question of nutrition I have not sufficiently studied it to speak with even a degree of authority. But good nutrition is important to make up for exhaustion, and especially the nitrogenous foods and the free vegetables which are rich in vitamines. Rice as a vegetable might be made use of in the summer months as it is in the south.

Lastly, it is doubtful if persons of extremely light complexion should attempt to live in the West. To be a true inhabitant of Alberta the fashionable complexion should be that of a Cree or Stoney Indian. The following words of a woman who lived for some time in Colorado may be of interest to Alberta women:

"I wouldn't live in Colorado," she said, "if they gave me the State. There ought to be a sign on the boundary, 'Abandon all hope of complexion all ye who enter here!' Complexion! Why, there isn't one in the State. You cannot put on skin food fast enough to keep from being dried to the bone. The dazzle of light makes you squint till your face looks like a railway map for wrinkles. The climate braces you up till in your laziest moments you work like a steam engine. It stimulates you till your nerves are stretched to the highest tension, you walk on air, you talk fast, you fairly bubble with energy, and you think Colorado the most magnificent country on earth, till some day a friend comes out from a little dull town in New England, and after she looks at you she says, 'My dear, how you are aging!' People don't rust out in Colorado, they wear out. They do things in a year in Colorado which would take ten to do down east—and they show it in their faces. No Colorado for me, thank you. I don't want to grow up and old with the country. I want to stay where things stand still, and keep my complexion and my hair and my nerves.'" There is many a woman in Alberta who will say 'Amen' to all that. It is true that sunshine has a darkening effect upon the skin, but no white race has yet been able to get dark enough to stand permanently

tropical sunshine. It has been like the experiment of the French-Canadian, who tried to keep his horse without hay or oats; he had just succeeded, he claimed, when " Sie horse, she die."

People of light complexion go under quicker than dark, women quicker than men. The children suffer most, both directly and indirectly, for children begotten by parents whose nervous force is impaired cannot be vigorous. Nature balances the account by producing sterility in the third or fourth generation. In the meantime abortions are far too numerous.

I shall be glad to have your criticism of this paper which I am quite conscious is not as exhaustive as it should be. I hold no brief for the thesis outlined, and should be glad for my own sake and that of my family if it could be shown to be unsound. History is my great standby, and the history of past attempts to colonize sunny lands on the part of white men speaks with no uncertain voice. We shall do well to hear her words.

Meantime the medical profession can do much to make residence in the West more endurable. The public will take from you suggestions as to habits of life that they will not take from a layman like myself. If my theory is sound, then we should face the facts, and do what we can to meet the conditions involved. Having called your attention to the matter, my duty is done.

In closing to commend to you these words of John Morley:

" Things are what they are; they will be what they will be; then why should we deceive ourselves? "

THE PUBLIC HEALTH NURSE

M. Powers, M.D.

The task set before me to-day is to describe how the public health nurse could be employed in a rural municipality. The manner in which I intend to treat this subject is to ascertain, first and foremost, what the term " public health nurse " means, what is the nature of her activities, what work does she perform, what problems has she solved, in short has she given results in the localities where she has been employed that would justify

her continued and permanent employment. If this can be shown, I feel that, if, in our rural municipalities, we have similar problems to be dealt with, then we would be thoroughly justified in persistently and strongly advocating, on every possible occasion, the speedy introduction of this most valuable arm of the public health service into even our remotest rural districts, where it is probably needed the most. In this connection I will quote the eminent authority, Roseneau, who says that "the country is the weakest link in the sanitary chain," and that "each farmhouse represents in miniature all the problems with which the city deals by wholesale," and "is often not financially able to meet its sanitary requirements."

The varied literature on this subject gives us much valuable and interesting information, especially the many instructive pamphlets published by the Met. life Insurance Co. and the United States Children's Bureau. From these we learn that at its inception in England almost sixty years ago public health or visiting nursing was intended solely for the indigent sick. No fees were charged and no recompense expected as those treated were too poor to pay. This method of nursing care was later taken up by other countries and its success was such among the poor that gradually it was extended to include the self-respecting and independent working classes, the largest element in our population who are unable to bear the expense of private nursing, especially if extended over any considerable length of time, and yet who are willing and wish to pay according to their means. This latter class now constitute the pay patients of most visiting nurse associations. The reluctance on the part of many who would rather do without nursing care than call upon or accept the services of the visiting nurse, whom they wrongfully look upon as only the charity nurse, has been one of the greatest drawbacks to the extension of this very valuable system.—according to the experience of Met. Life Insurance Co. This difficulty has been circumvented or obviated in New Zealand where the services of the Public Health Nurse—the to rich and poor alike. This Plunket Nurse, called after Governor Plunket, who instituted it, covers the urban districts. Plunket Nurse—similar to the V.O.N., are now furnished free

while the rural districts are attended to by the district visiting nurses paid directly by the government through the Federal Board of Health. Accordingly in New Zealand each and every individual has the benefit of the finest of nursing gratis, the taxpayers in general paying for it—an admirable system worth while studying, and which has given admirable results, especially in lowering the infantile mortality, though this has not been its chief and only aim.

The activities of the visiting nurse are manifold. She answers every call, concerns herself with the health of the community in general, as well as with that of the individual in particular and performs a double duty in that she cares for the sick and keeps the healthy well. She seems to have a special predilection in liking for the baby, for she starts to take care of him even before he is born in the pre-natal care she furnishes the expectant mother, remains with mother and baby in the lying-in period, and for the next few years, his most trying ones, keeps a watchful eye on him in the welfare stations, milk depots or baby clinics when she is not visiting him in his home. Later on, as the school nurse, she is his constant attendant, guarding him against the preventable diseases (especially tuberculosis) in her lessons on personal hygiene, and furthermore detecting in him physical defects, whose early removal means in later years all the difference between the delicate individual and the strong robust citizen. But the public health nurse is only human so she finds at times that, notwithstanding her well-laid plans and utmost endeavors, accident and disease will and do assert themselves; but even here she does not falter, for there you will find her, the practical visiting nurse, at the bedside soothing the weary sufferer, thus fulfilling, as the Duke of Devonshire so aptly styles it, the chief funtion of all nurses—that of bringing joy and happiness to the afflicted.

These in brief are her activities. Now what about the results achieved? In the words of one eminent authority, Lee K. Frankel, third Vice-President of the Met. Life Insurance Co., "the day has gone by when it is necessary to offer apologies for visiting nursing," and further that "this form of activity is to-day well recognized as an important factor in the improvement of health conditions."

The Canadian Journal of Medicine and Surgery

A Journal published monthly in the interests of Medicine and Surgery

Vol. 50. TORONTO, OCTOBER, 1921 No.

Editorials

EXPLANATORY

We are sure our readers will overlook the omission in these columns of recent happenings in medical affairs during the past two or three months, such as the reports of various medical conferences.

Anticipating the printers' strike, which "tied up" so many publications during the summer, the manager of this journal, had the July and August numbers set in type in advance of the commencement of the strike, before the Provincial and Dominion Medical Association meetings had been held. The result of this foresight was that while other Toronto journals failed to appear, *The Canadian Journal of Medicine and Surgery* was issued on time, as usual,but regrettably minus certain textual material, which otherwise would have appeared.

Under the difficult conditions adumbrated, produced by this serious *impasse* between the printers and their employers, we ask for leniency of judgment both from subscribers and advertisers.

A MESSAGE FROM THE CANADIAN PRACTITIONERS IN CZECHUAN PROVINCE, WEST CHINA, TO THEIR COLLEAGUES IN CANADA

We are a little group of men and women who have graduated from the Medical Colleges of Canada and are devoting our lives to the uplift of the tens of millions in far-off West China. We wish briefly to address ourselves to you in behalf of a project which concerns us all.

Most of you will have heard of the Chengtu Medico-dental College project started two years ago by one of our number when home on furlough, Dr. C. W. Service visited many centres in Canada and met many of you; and also through an illustrated prospectus, entitled "Spend Ten Minutes in China" brought to your attention the salient facts concerning our medical conditions and requirements in this part of China Now that Dr. Service has returned to his work we desire to urge upon you the importance of the project which we advocated.

Of course, we are all interested in hospital and dispensary work. We cannot but be where we are daily faced with diseases of many kinds and in large numbers; and when we realize that only we trained foreign practitioners can bring scientific relief to the suffering multitudes of China. But this question of hospitals and dispensaries with their staffing, equipment and maintenanace concerns Christian people in general and these needs must be met through the regularly organized missionary agencies of the various churches.

But our appeal to you has to do directly with the important question of medical education in its broadest sense, especially as it concern us in West China. Medical education in China is of strategic importance, for it is the only rational way to attempt to solve the outstanding medical problem of China. Obviously foreign agencies are insufficient to meet the unspeakable need, and we can only adequately assist in the solution of this problem by relating ourselves, our hospitals, our

dispensaries, etc., to the essential task of raising up a native medical profession, strongly based on scientific and Christian foundations. And in doing this we feel that we are making our greatest contribution to the uplift of this great nation.

When we tell you that China's four hundred millions who live in the midst of conditions which beggar description, need four hundred thousand nurses, two hundred thousand doctors, and one hundred thousand dentists, and that less than one per cent. of her need for doctors is already met, that she has only a few hundred nurses, less than half a dozen foreign dentists, and only one Chinese dentist who has graduated in China, you will appreciate the huge dimensions of the problem which we aim to solve. But we can only do this in so far as we help the Chinese to help themselves. This is our aim, and it is the solution of the problem that we solicit your interest and co-operation.

In addition to the Rockefeller Foundation medical school in Peking, several schools conducted by foreign governments, and a small number of inferior medical schools which the Chinese are attempting to carry on, there are about six union medical schools operated by missionary organizations. Some of these last are among the best in China. The China Medical Missionary Medical Association has fixed on about half a dozen strategic centres in which to develop strong medical schools. One of these centres in Chengtu, capital of Szechuan, the largest and most populous province, having a population of seventy millions.

Into this great city of five hundred thousand is established the West China Union University, conducted by five co-operating mission boards, representing Great Britain, United States, and Canada. This University has a constituency of one hundred million, and is the only institution of the kind in all this vast area. It is both interdenominational and international in its organization, and is governed by a Board of Governors in the home lands representing the five mission Boards. It was founded in 1910, has had a healthy growth;

possesses two hundred acres of land, has about forty foreign buildings already erected, and has several faculties of which the medical and the dental are the most recent. These latter are served splendidly by the other departments, such as biology, physics, chemistry, etc., each of which is to have its own separate building.

Only one building is to be erected for the teaching of medicine and dentistry. Hence our college is to be called the medico-dental college. It is to provide this building and its equipment that the members of the three healing professions of Canada, medical, dental and nursing, irrespective of denominational affiliations, are being asked to contribute. The nurses are included because there is such a close relation between the medical and nursing education and hospital efficiency.

We wish to call attention to what is provided for us in other ways. The other faculties teach the pre-medical and basal subjects. The site is provided for us on the university campus. There are hundreds of subsidiary mission schools of all grades. There are already erected and in operation in Chengtu three splendid hospitals with accommodation for 300 patients. There is also a dental hospital. One of the constituent missions is now planning to erect large modern outpatient department. The staffing, equipment and maintenance of all these institutions is undertaken by the various missionary organizations at great expense. These hospitals, etc., are used for training internes, nurses, dental students and mechanics and pharmacists. As these graduate they are sent out to other hospitals to assist and receive further training.

The course in modern medicine covers seven years, including two pre-medical after graduation from High School, and a final year of interneship in Chengtu hospitals. Our first four medical graduates received diplomas in 1920, while three more expect to finish in June, 1921. The first Chinese to graduate in dentistry in China will also receive his diploma in June. Ours is the only dental faculty in all China. Two pharmacists received diplomas in 1921 after six years of train-

ing, although a pharmacy department is not yet a definitely recognized one in the University.

Thus you see we have made a good beginning, although in our work of medical, dental, nursing and pharmaceutical education we are carrying on under great handicaps, chiefly for lack of a suitable building with equipment, and also because of insufficient staff. But we are not down-hearted. We have already accomplished much with little, and have become experts in economizing. We have given ourselves to the healing and salvation of West China, and our lives are about all we have to give. But we appeal to you our colleagues at home to lend us a hand in doing something worthy of our noble professions, for a magnificent people with a great future who must look to us for leadership and inspiration in all that is uplifitng and wholesome.

The people in the home lands are responding generously to the appeal in behalf of the magnificent work of Dr. Grenfell of Labrador. It is a worthy undertaking to meet the needs of our own kith and kin near at hand. But surely your generosity will not stop there. We invite you to share with us in the beneficient ministry to the needs of the mute multi-millions far off in West China.

What we ask is that the members of the healing professions in Canada, together with other friends of the suffering, will raise and present to the Board of Governors of the West China Union University the sum of one hundred thousand dollars to build and equip the medico-dental college in connection with this university. To raise this sum will not require a great tax on any of you. What we desire is that thousands of you may have the privilege of co-operating with us in achieving this much desired end.

While other buildings are being erected from other sources we are anxious that this college shall be a distinct contribution to the University from Canada.

A splendid start has already been made in this project, and considerable money has been subscribed or paid into the

treasurer of the fund. The first and very enthusiastic chairman of the promoting committee was the late R. A. Reeve, of Toronto, from whose estate $7,500 has been assigned for this purpose.

As soon as you read these lines will you not be good enough to send your cheque large or small to the Treasurer, Dr. Walter Willmott, 74 Crescent Road, Toronto? A similar statement and appeal is being sent to the dentists and nurses of Canada. The Senate of the University has sent to the Board of Governors an urgent appeal for the immediate erection of this building. The need is great; the time is ripe, and exchange is now excellent.

There are other doctors than Canadians on the college staff and at work in West China. We, ourselves, are not all on the teaching staff, but we are all intensely interested in this project. We, therefore, respectfully appeal to you to give what we cannot give. Drs. Sheridan, Best, Elliott and Crawford will be in Canada in the near future and will gladly furnish any information desired. Information as to their whereabouts, also prospectuses of the College Project may be had from the Secretary, Dr. John N. E. Brown, 238 Bloor Street West, Toronto.

Signed by:—

Dr. A. E. Best, Toronto Medical College; Dr. W. H Birks, Weston Medical College; Dr. Clark, Queens Medical College; Dr. J. R. Cox, McGill Medical College; Dr. W. Crawford, Western Medical College; Dr. C. C. Elliott, Western Medical College; Dr. C. Freeman, Toronto Medical College; Dr. Anna Henry, Toronto Medical College; Dr. C. B. Kelly, Toronto Medical College; Dr. Retta Kilborn, Toronto Medical College; Dr. W. R. Norse, McGill Medical College; Dr. C. W. Service, Toronto Medical College; Dr. W. J. Sheridan, Toronto Medical College; Dr. E. K. Simpson, Western Medical College; Dr. Snyder, Toronto Medical College; Dr. Ada Speers, Toronto Medical College; Dr. E. C. Wilford, Toronto Medical College; Dr. W. Williams, Manitoba Medical College;

In addition there are five or six doctors representing at east four of these schools who are under appointment to come to West China within the next year or two. But the men on the field know the facts at first hand and urge this appeal.

PERSONALS

Dr. William Ewing Sinclair (late Resident Physician The Babies' Hospital, New York), announces that he has opened offices at 124 West Bloor Street, Toronto. Practice limited to diseases of infants and children.

Dr. James G. Caven recently announced that he has retired from general practice and devotes himself to office and consultation work.

Dr. Alfred S. Burdick has been elected to fill the vacancy as President of The Abbott Laboratories, caused by the death of Dr. W. C. Abbott. He is a graduate of the Alfred University, Alfred, N.Y., and Rush Medical College, Chicago. He has been closely associated with The Abbott Laboratories for over seventeen years, and for the past six years has been Vice-President and Assistant General Manager.

DR. CLARENCE L. STARR TO TEACH AT UNIVERSITY

Dr. Clarence L. Starr, Chief Surgeon at the Hospital for Sick Children, Toronto, has resigned his post to accept the position of Professor of Surgery at the University of Toronto. The post of Professor of Surgery at the university was held for many years by Mr. Irving Howard Cameron, M.B., and is one of the most important positions within the gift of the provincial insitution. Dr. Starr went overseas in 1916 and served as Lieutenant-Colonel in the C.A.M.C., being attached to the Ontario Military Hospital at Orpington. He held posts in various other Canadian hospitals, returning to Canada in 1918.

Canadian Journal of Medicine and Surgery

Toronto Canada

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Address all communications to "The Canadian Journal of Medicine and Surgery," 145 College Street, Toronto, Canada.

Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the first of the month previous to publication.

Reprints, including halftones, etc., supplied authors at net cost.

Original Contribution

CALCULOUS ANURIA

H. B. Anderson, M.D., L.R.C.P. (London), M.R.C.S. (Eng.)

The case forming the basis of this paper is in many of its clinical features so typical of calculous anuria, that only a brief summary is necessary.

The patient, a gardener, 47 years of age, Scotch, married, with five healthy children, had always enjoyed excellent health until June, 1914, when he fell from a tree a distance of 25 ft., injuring his back, and rendering him unconscious. He was laid up for 8 weeks, but made a good recovery and had resumed his ordinary work. He gave an indefinite history of a sudden attack of severe right sided abdominal pain some 15 years before. There was no recurrence of this and no other history of urinary trouble either before or after the accident. He passed an examination for life insurance 15 years ago.

During the 3 months preceding the onset of his present illness, he had complained of some pain in the left lumbo-sacral region, especially on stooping.

On the night of October 20th, he felt under the weather. The next morning, he complained of pain and soreness under the left costal margin posteriorly. He had passed no urine since the previous evening, and therefore was catheterized, but the bladder was empty. Dr. Bruce sent him into the Wellesley Hospital on October 22nd, under my care. Food was cut off, he was given copious draughts of barley water, Vichy water, hot packs, saline aperients, hot applications to the loins, cupping, etc., but without effect on the urinary secretion. There was tenderness and some fulness and rigidity under the left costal margin laterally and posteriorly.

Temperature on admission to the hospital was 101, pulse 80, respirations 30.

His tongue was thickly coated, the breath had a heavy urinous odor, but his mental condition remained perfectly clear; the pupils were of moderate size, equal and active; there

was no oedema except a very slight puffiness of the eye-lids. As no urine was secreted during the 23rd, Dr. Bruce and myself were agreed that operation was indicated, which was accordingly done on the morning of October 24th, after about 84 *hours of complete anuria.*

An X-ray examination showed indistinct shadows in the right renal region, suggestive of calculi, but nothing on the left side. Ureteral catheterization was considered inadvisable.

From the fact that all the recent symptoms were referred to the left side, it was decided to operate on the left kidney first. This kidney was found to be very much enlarged, of a deep purplish-red color and the capsule so tense that it was ruptured, or had ruptured spontaneously, before the kidney was exposed, and very free haemorrhage occurred from the renal parenchyma. A strong urinous odor was apparent before the kidney was incised. There was no hydronephrosis and no stones in the pelvis or upper part of the ureter. The kidney presented the appearance of compensatory hypertrophy, with recent intense engorgement and extreme tension of the capsule.

The right kidney was next exposed and was found to consist of a small mass of fatty and fibrous tissue, the renal vessels being practically obliterated, the ureter thickened, the lumen open and enlarged at the visible upper part.

A rapid nephrectomy was done on the right side and on opening the kidney, the pelvis and calyces were found thickened and encrusted with calcific deposits, some of which were wholly and others partially detached. No renal tissue remained and the organ, both from its appearance and the absence of blood supply, was evidently functionless.

The leucocyte count after operation was 9600. The systolic blood pressure was 130 cmm. the diastolic 100.

Daily observations of the blood pressure were made during the next three weeks, the highest systolic pressure registered being 135 cmm., and the lowest 106; the highest diastolic pressure 100 on the day of operation and the lowest 56, with a pulse pressure on this occasion of 54.

The day following operation there was a copious soaking of the dressings with blood and urine. Three days after operation 475 cc. of urine were voided naturally. From this time a variable quantity of urine was voided daily, with a corresponding decrease in the drainage through the operation wound, until the quantity reached normal limits. No

calculi were passed at any time and no evidence of ureteral obstruction on the left side appeared. The first urine voided contained B. coli, blood, pus, hyaline and granular casts, but except the pus and B. coli these cleared up in the course of a week or ten days.

For some days following operation and even after the kidney was secreting freely, the patient was quite delirious, had marked insomnia, the skin was dry and harsh, the tongue heavily coated and the breath had a urinous odor. The haemoglobin was reduced to 58 per cent., the red blood cells to 3,840,000. This anaemia could in part be attributed to the free haemorrhage at the time of operation and in part to the toxaemia with resulting haemolysis.

The patient's general condition had progressed satisfaction with the exception of a febrile reaction, after the operation wound in the loin had closed, due to some pus collection, necessitating reopening of the wound.

Considering the whole case, it would seem that the right kidney had been destroyed by an infective pyonephritis secondary to calculus, of which the attack some 15 years before was symptomatic. The left kidney had undergone enlargement in order to compensate for the increased work. The latter, without any discoverable obstruction to the urinary outflow, had become acutely engorged with marked tension within its capsule, causing sudden and complete anuria.

The relief of this tension and free drainage through the incision, permitted the re-establishment of the functional activity of the kidney.

This is not a commonly recognized explanation of the striking clinical picture of calculous anuria, but I believe it is warranted in this case by the sequence of events before recorded.

Patient continued in good health for four years then suddenly developed anuria and died in a few days I did not have an opportunity of examining him during his last illness.

In another case of calculus anuria seen with Dr. John McCullough some ten years ago—a man fifty-five years of age, went five days without passing urine. No uraemic symptoms developed. At operation the right kidney showed evidence of extensive disease—apparently functionless. Left kidney was enlarged and engorged. An incision was made through the capsule into the pelvis. No calculi were found on exploration —ureter was patent. Drainage was carried out through the

lumbar wound until the urine began to be voided naturally. The patient made a good recovery and is still living, having had no recurrence of anuria, though pyuria has persisted.

I do not propose entering into any exhaustive description of this somewhat infrequent, but clinically important and dramatic emergency, though a brief statement of recent literature may not be out of place.

Lincoln Davis in a recent paper (Surgery Gynaecology and Obstetrics, Vol. XVIII., No. 6, p. 676, 1914), defines calculous anuria as a complete suppression of urinary secretion due to obstruction of the renal outlet by one or more calculi. It occurs under the following conditions:

(1) When a ureteral or pelvic calculus obstructs a congenitally single kidney or one whose fellow has been removed by operation or destroyed by disease.

(2) When both kidneys are blocked by ureteral or pelvic disease.

(3) Possibly—if one kidney is blocked by a calculus, a reflex inhibition may cause cessation of function of the opposite kidney, although the latter remain unobstructed.

Watson (International Urological Congress, Paris, 1908), cited 17 cases of reflex calculous anuria out of 187 collected.

He estimated that in 20 per cent. of cases, both ureters were obstructed by calculus.

At this Congress, where the subject of anuria was exhaustively considered, the consensus of opinion favored the view that reflex anuria though rare, yet really did exist.

Davis believes that cases wherein a diseased condition of the principal kidney is found, should be rigidity excluded from among those where *reflex inhibition* is offered as an explanation of the anuria. He points out that there is little experimental data in favor of reflex inhibition.

In 1904, Huck collected 61 cases of calculous anuria. Of these, thirty offered sufficiently explicit data for analysis. He found thirteen cases of bilateral obstruction of the ureters; four cases of obstruction of one ureter, the other kidney being completely atrophied; three cases of obstruction of one ureter, the other kidney being congenitally absent; five cases of obstruction of one ureter, the other kidney having been nephrectomized; three cases of obstruction of one ureter, the other kidney presenting no obstruction, verified at autopsy. These are cases of Marcille, Leonte, and Albaran. In two of these latter cases there was diffuse nephritis of the unobstructed kid-

ney. This leaves but one case out of thirty in which there is question of reflex inhibition of a sound kidney. And in this case exact histological data as to the condition of the unobstructed kidney are lacking; it is merely stated that it was enlarged and congested.

In fact, as far as I have been able to learn, no cases have been reported of so-called reflex calculous anuria backed by convincing postmortem and histological evidence of the soundness of the unobstructed kidney. This is an essential desideratum for acceptance of the theory.

Henry Morris (Hunterian Lecture, 1898) treating of calculous anuria, says: It often affects persons in robust health and may be sudden and complete in its onset. It is then due to the cessation of function of a kidney which has undergone compensatory hypertrophy, and which up to the moment of obstruction has been secreting the whole or chief part of the urine.

It is in the first place a failure of excretion due to obstruction, but rapidly becomes a failure of secretion owing (1) to intrarenal pressure on the obstructed side and (2) to reno or uretero-renal reflex suppression in the opposite kidney if the latter has taken any share in the secretion up to the time of the commencement of the anuria.

Anuria may occur at any age and in either sex: it is more frequent in males of 35 and upward and more especially in elderly men. The youngest case was at the age of 6 and the oldest 80. Most commonly the patient has had previous attacks of renal colic or of lumbar pain followed by the discharge of calculi or gravel. But cases have occurred where there was no previous attack. The condition is often determined by fatigue.

He gives three factors going to produce calculous anuria

(1) Long standing change in one kidney causing diminution or cessation of function or else a congenital anomaly.

(2) Recent or recently aggravated lesion of the principal kidney. This is mechanical or caused by calculi.

(3) A reflex inhibitory effect upon the disorganized kidney, leading to complete suppression of its imperfect functional power.

The ureter or renal pelvis of one side has become recently occluded, whilst the kidney of the other side is either congenitally absent or functionally suppressed, or structurally destroyed

by calculus, or some other form of renal disease. Rarely does simultaneous calculous obstruction occur.

Morris says "simple atrophy without hydronephrosis is one of the most frequent consequences of old calculous obstruction of ureter.

Of 28 cases Morris gives:

Principal kidney enlarged	8
enlarged and congested	4
small	2
pyonephrotic	6
hydronephrotic	8
Opposite kidney, no trace	6
marked atrophy	8
disorganized by calculus	11
hydatid cyst	1
enlarged	2

Symptoms—

Are not simply those of uraemia for many days may elapse without its appearance and authors have provided two stages of anuria:

(1) Silent or tolerant period.

(2) Uraemic.

Death may occur in (1).

In the first period patient may have pain in kidney last affected, sometimes only lumbar pain and occasionally no pain.

There may be symptoms referable to the digestive system-eructations, nausea, corstipation, flatulence, furred tongue. Occasionally mental depression, sleeplessness. There is usually strangury.

Legueu from 30 cases of calculous anuria found post mortem:

On one side		**On other side**	
obliterated ureter	23	congenital absence	3
calculi	7	atrophy or other change caused by calculi	20
		Obliterated Ureter	6

Butler's case recorded in Lancet (Vol. 1, p. 79, 1890)

Anuria existed for 13 days due to atrophy of opposite kidney which weighed only 120 grs., and to permanent impaction in the ureter of the damaged organ of a mass of hard gritty thrombus.

Nitch of St. Thomas, London in Murphy's Encyclopaedia

says:—"calculous anuria without uræmic symptoms should be relieved by drainage of affected kidney."

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THE NORMAL POINT ON THE CLINICAL THERMOMETER

R. D. Rudolf, M. D., Toronto

The temperature of a normal human being is a very fixed thing. When taken with all precautions it is found to lie between 98 and 99 degrees Fahr., and this in spite of great variations of the temperature of the surrounding medium. But in order to reach this point the temperature must be measured *per rectum* or *per vaginam*. When the measurement is made by the mouth or in the axilla the reading is usually a good deal below this and is more often below than above the 98 o line.

Now most clinicians in their examination of at least adult patients take the temperature either in the mouth or in the axilla and so find that the average normal temperature is well below the 98.4 degrees or 98.6 degrees Fahr. mark which one

finds on all clinical thermometers and on most clinical charts.

Although attempts had for long been made to find the bodily heat it was Wunderlich who in 1868 introduced thermometry as a routine in clinical practice. I have been not able to find who put the fixed mark upon clinical thermometers and clinical charts at 98.4 degrees or 98.6 degrees. Certainly Wunderlich did not do so for he wrote that "for the beginner, perhaps, it may be useful to mark the space between 97.5 degrees Fahr. and 99.5 degrees Fahr. in some way; with a red pencil for instance, in order to denote the range of normal temperature." (Medical Thermometry, page 460). Dr. M. S. Pembrey, who a few years did so much work on the temperature of the body, says "the temperature in the rectum alone represents the heat of the body . . . . the so-called half-minute thermometer will not give the true temperature of the body under different conditions even if it be retained for five or ten minutes under the tongue of a firmly closed mouth." (Brit. Med. Jour. Feb. 27, 1904).

Some years ago, being much struck with the fact that so many temperatures seemed "subnormal," I got my whole class to take their own temperatures, with due precautions against error. Over a thousand observations were made, and when we compiled the results it was found that the average morning temperature was 97.637 degrees and the evening one 97.677 degrees Fahr. This winter I repeated the experiment with the present class and the results were practically the same.

If a great many clinical charts be studied it will be seen that the average temperature of afebrile patients lies well below the so-called normal line. This is best brought out by looking along the chart from one side, yet probably such charts scarcely show as low a reading as they should, as many nurses are content merely to shake the mercury of the thermometer down to the arrow mark, and thus may record the temperature as 98.4 degrees, when really it was lower than this. In a paper that I contributed to International Clinics some years ago (1908) I wrote, "It appears that we have been trying to live up to a physiologically perfect standard with very imperfect methods."

The point that I desire to make is that clinical thermometers if marked at all to denote the normal temperature, should be marked for this purpose with a bar extending from say 97.2 degrees, to 98.6 degrees Fahr. and then any temperature

reading within the limits of this bar should be considered as normal. And clinical charts might have a delicately shaded zone corresponding to this bar which zone will contain all the normal readings. We had such charts in the Toronto General Hospital for years but like many good things they have gone out of fashion.

I have not touched upon the subject of subnormal temperatures but a due appreciation of the range of the normal one when taken in the ordinary way, will do much to allay fears that often exist when a temperature is found to be say 97.2 degrees Fahr.

The reason for this short communication is that the Academy was recently asked to express an opinion as to whether clinical thermometers should be marked with an arrow at 98.4 degrees as is done in England, or 98.6 degrees as in America. Our Council courteously asked me for an opinion and my answer was that it made little difference, as both these points were too high for thermometers intended for ordinary clinical work. Our President then suggested that a resolution might be presented to the Academy at this meeting recommending that such thermometers be marked with a bar extending from 97.2 degrees to 98.6 degrees Fahr. and if passed it would be forwarded to other societies and especially to the National Physical Laboratory of Great Britain where all clinical thermometers are tested before being distributed for sale.

Note—The following motion was then unanimously carried:

"In the opinion of the Medical section of the Academy of Medicine, Toronto, the arrow mark at 98.4 degrees or 98.6 degrees Fahr. on clinical thermometers should not be there as it leads to the belief that 98.4 degrees or 98.6 degrees Fahr. is alone the normal temperature. If any mark is used to denote the normal temperature then this mark should be in the form of a bar extending from 97.2 degrees to 98.6 degrees Fahr., and all temperatures occurring within this range may be considered as normal."

CANADIAN MEDICAL ASSOCIATION

The national meeting was held in Halifax. Some men who were down for papers did not appear: Owing to illness, Prof. J. G. Fitzgerald (of Toronto), who was to have spoken on "Graduate Training in Public Health in the University of Toronto," was absent, and in absence Dr. Clarence M. Hincks supplied a paper which was read by Dr. F. V. Woodbury, of Halifax. Dr. H. W. Hill, of London, was down for a paper on "Infant Mortality Lessons from Vital Statistical Studies in London." Not being present it was read by Dr. A. D. Craig. Numerous figures were given to show the decline in the mortality of infants in London after proper measures of treatment had been instituted. Dr. Hill recommended that the system of direct tuition of hygiene as carried on in New Zealand Schools, should be adopted in the Canadian Schools.

Dr. A. F. Miller, of the Nova Scotia Sanitarium, Kentville, gave a paper on "Industrial Treatment of Tuberculosis." He stated that it looked as though the establishment of sanitariums had done little to check the spread of tuberulosis, insofar as any appreciable reduction in the death rate was concerned. Excellent work has been done, however, and to limit the work of the sanitarium to curing incipient or early adult tuberculosis is to miss a great part of the good that such an institution should accomplish. The institutional treatment is not entirely satisfactory so far as permanent results are concerned. Relapses are general. The cause is largely an economic one: The pressure of living and endeavouring to keep the pace with others less handicapped. The tuberculosus are caught in the grind of the great machine we call civilization. They cannot afford a healthful home life. Society has a vital problem here to face; and the medical profession and public health workers must have some ideas, some vision, some leadership to offer. The Government of Canada has set an example in the treatment of their ex-service men, who are tubercular. These are given full pension for six months

after discharge from a sanitarium, so that they need not take up full time work too soon. They are provided with "sheltered employment" which with organized means for providing beautiful living conditions is the only effectual way of handling this problem. It must be understood that no organized sheltered employment can be expected to be self-supporting. Herein lies the duty of the State (Federal, Provincial, or Municipal), to provide for those who are incapacitated from bearing their full burden.

Institutional training educates the patient how to look after himself when he is discharged—what to do and what not to do, on the penalty of suffering a relapse. In Framingham a successful attempt has been made to carry out a complete health program. Canada should lend support to a similar organized health campaign. It is up to doctors and health workers to point the way to the less instructed masses of humanity who look to them for guidance.

Dr. F. B. Jones, of Montreal, read a paper written by Dr. T. A. Sharkey on "The Spread of Tuberculosis From New Aspects." The essaysist particularly emphasized the fact that tuberculosis is as readily spread by lower animals as by human beings.

Dr. D. A. Stewart, of Ninette Sanitarium, Manitoba, said that every factor in our modern living conditions had a important effect on the spread of tuberculosis—hours of labor, schools, recreations, housing, etc. The question is interwoven with all public health and community problems.

Dr. Ross laid strong emphasis on the need for proper methods of disinfection after a case has been discovered.

Dr. Craig laid stress on the use which should be made of sanitoria for the education of tuberculous people.

In Dr. Hinck's paper—"Recent Progress of Mental Hygiene in Canada"—the writer stated that this vital question was another problem brought to the fore by the war. Great advances had been made during the last few years along these lines. Fuller staffs were necessary in hospitals for the insane. The system of occupational aid had been tried with the greatest success in Toronto and elsewhere in Canada. It was definitely known that insanity was not incurable. Special classes in schools were now successfully conducted for feeble-minded children. Six thousand children in Toronto had been treated in this way. Mental specialists were now necessary in every criminal court to detect criminals whose behavior

was due to a diseased brain or mind. The municipal problem was vital to this Dominion. The standard of admission was being raised; this was good public economy.

ADDITION TO ACADEMY OF MEDICINE, TORONTO

An addition to the Academy of Medicine to provide an auditorium and for more library accommodation held on May 3rd, is practically complete. Membership is now 630. A bronze tablet will be unveiled this autumn to the eight who died of the 240 Fellows who served in the war. Dr. Robert T. Noble is president; vice president, Dr. W. H. Harris; honorary treasurer, Dr. J. H. McConnell; honorary secretary, Dr. F. C. Harrison; elective members of Council, Dr. J. T. Fotheringham, Dr. H. B. Anderson, Dr. J. H. McPhedran, Dr. E. A. MacDonald, Dr. E. E. King, Dr. G. S. Young, Dr. N. A. Powell; chairmen of sections: Medicine, Dr. R. W. Mann; surgery, Dr. M. H. V. Cameron; pathology, Dr. Norman B. Gwyn; opthalmology and oto-laryngology, Dr. Perry Goldsmith; paediatrics, Dr. Arthur Goulding; obstetrics and gynecology, Dr. C. J. Currie; State medicine, Dr. John T. Phair.

AMERICAN MEDICAL EDITOR'S ASSOCIATION

The attached Resolution was passed at the 52nd annual meeting of the American Medical Editors' Association, June 7th:—

Whereas:—The medical restrictions of the Volstead Act, together with its various administrative and other interpretations and rules and regulations and enforcements, etc., constitute in some of their effects, indictment of the medical profession and harrassment of the medical practitioner and the sick, and are obstacles to free pursuit of honest medical judgment and therapeutics, and have reacted to the detriment of society and the public health and are opposed to public policy; AND WHEREAS:—Some of these restrictions and rules and regulations and interpretations, etc., are not based upon concensus of medical experience and practice and established usage; AND WHEREAS:—It is apparent that they have not been framed and interpreted and administered with full appreciation of all matters involved:—AND WHEREAS: The precedent established by the Volstead Act in restricting

medical practice, should, if physicians value their therapeutic liberty, be met with a protest that will command attention. AND WHEREAS:—The point at issue is the right of the physician to select his remedies, and to decide what doses of these remedies each patient requires:—AND WHEREAS:—This issue in no wise affects and has nothing to do with propaganda either for or against prohibition, but is purely a matter of preserving the necessary rights of the physician in the interests of public health and public policy; BE IT THEREFORE RESOLVED:—That the American Medical Editors' Association protests against further undue regulation of therapeutic procedure by statutes or by administrative interpretation or regulation; AND BE IT RESOLVED:—That the Association requests of the proper authorities a review and revision of such existing statutes or rules or regulations as may be unduly restrictive of the therapeutic judgment and procedure of physicians. We ask this for the preservation of the necessary rights of the medical profession and in the name of public welfare and wise public policy.

OBITUARY

DR. A. J. JOHNSON, TORONTO'S CHIEF CORONER, CALLED BY DEATH

Dr. Arthur Jukes Johnson, Chief Coroner, for the City of Toronto, who died, on June 9th at his residence, 52 Bloor Street west, in his 73rd year, after a long illness, was a man of exceptional intellectual attainments, who enjoyed an eminent position, not only in his chosen profession, but also in various other activities. While he was widely recognized as a medical practitioner of outstanding ability, it was his love for what is known to medical men as "medical jurisprudence," and to those of the legal fraternity as "foresnic medicine," which brought him greatest prominence. With him the study of the cases involving criminal aspects was a hobby, and his powers of observation and deduction won him widespread repute as an authority in such matters.

As a consequence of his unusual qualifications in this respect, he was frequently called upon to give expert evidence in criminal cases in the courts, particularly in those cases in which poisons had been used. During the last quarter of

a century or more, Dr. Johnson had appeared in this expert capacity in many murder trials throughout the Province.

Among the more famous of these trials was the Sifton case at London, Ontario, the only instance in which Dr. Johnson appeared, for the defence; the Birchall case, tried at Woodstock, and the famous Bracebridge poisoning case. In the Sifton case a young farmer of that name was accused of murdering his father with an axe to prevent the elder Sifton's remarriage, and the possible diversion from the son of the father's estate, but was eventually liberated.

Birchall was convicted and later hanged for the murder of a young Englishman named Benwell, whom he had enticed out to this country, and killed in the woods on a farm near Woodstock.

The Bracebridge case was, perhaps, the most mysterious, A young school girl, Katie Tough, drank some supposed medicine, while attending a party near her home in Muskoka, and died almost instantly. No trace of poison could be found when an autopsy was performed. Subsequently, it was discovered, however, that a young man named Hammond, to whom Miss Tough had become secretly engaged, and who had taken training as a druggist, had sent her the liquid after taking out an insurance policy on her life. It developed that the "medicine" had been a very powerful acid which had the peculiar property of entirely evaporating after it had done its deadly work. Hammond was tried and finally paid the penalty for his crime.

Dr. Johnson, who was one of the oldest coroners in point of service in the province, and was credited with having officiated at more coroners' inquests than any other practitioner in Toronto, was also an authority on the procedure to be followed in connection with these investigations. For the benefit of others engaged in this duty he embodied the results of his wide experience in a book, which is generally recognized as a most authoritative treatise on the subject.

When he was appointed chief coroner for the city of 1903, the city Morgue was then located on the Esplanade. The buiing was old and conditions finally became so bad that arrangements were made to hold the inquests at Court Street police station until it was finally decided to erect the new Morgue building on Lombard Street.

The younger men in the profession when called upon to officiate at inquests always found in the chief coroner a wise

mentor and a kindly adviser. It was Dr. Johnson's custom to take personal charge of practically all the more serious cases in which foul play was suspected.

Dr. Johnson came of distinguished lineage. He was born on August 20, 1848, on Bloor Street, this city, the eldest son of the late Rev. W. A. Johnson, rector of Weston Anglican Church, and the founder of Trinity College School, of which Dr. Johnson was the first head boy. His grandfather was Lieut.-Col. John Johnson, who served as aide-de-camp to Sir Arthur Wellesley, afterwards the Duke of Wellington, in the Peninsular War.

Book Reviews

MANUAL OF OPHTHALMIC PRACTICE

By F. P. Maynard, M.B., F.R.C.S., late Professor of Ophthalmic Surgery, Medical College, Calcutta.

Twelve plates and 133 illustrations. Edinburgh: E. and S. Livingstone, 1920. 25 shillings net.

This manual is intended for the use of senior students and junior practitioners is among the very best of those with which we are acquainted. It is evidently the product of an oculist of great experience who contents himself with the essentials of theory and who has weeded out from the long list of therapeutic procedures and agents those which we has found uselss.

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In the Comedy Relief section of the May issue of "The Bloodless Phlebotomist" a delightful satire entitled "Too Late Now," by James Montague, gives a mirthful view of gland transplantation vs. euthanasia at sixty. This is only one of several worth-while features of this publication. J. Petrie Hoyle, M.D., the first American physician to serve in Flanders during the World War contributes a very interesting article on war injuries, and the article on "Treatment of Inflammation of the Fallopian Tubes," by Dr. J. Sidney Eason, Coldwater, is well-worth reading.

If you have not received this little journal a request to The Denver Chemical Mfg. Co., New York City, will bring, without expense to you, the May number as well as future issues.

Neoplastic Diseases. A text book on Tumors. By Jame Ewing, M.D., Sc. D., Professor of Pathology at Cornell University Medical College, New York City. Octavo of 1027 pages with 479 illustrations. Philadelphia and London: W. B. Saunder's Company, 1919.

Neoplastic Diseases by Ewing is a comprehensive work of over 1,000 pages devoted exclusively to the history theories, and pathology of tumors. It has evidently been the object of the author to make clear the origin and structure of tumors. Under improved nomenclature all tumors are discussed from the commonest varieties to those rare forms that are known only by the names of the authors who described them. Chief in importance is the discussion of cancer, the great purpose of the book being evidently to endeavor to do something that might benefit in eliminating this scourg. Cancer was well-known to the ancients, and Hippocates treated it by burning, a method we have seen revised in recent years. The theories of the nature of cancer are rather fully discussed, together with metastases, and the effects of malignancy on the organism.

The description of both macroscopic and microscopic pathology are clear and concise, and a subject that is usually considered dry is made interesting reading. The subject s covered most satisfactorily.

SURGERY: ITS PRINCIPLES AND PRACTICE

By various authors. Edited by William Williams Keen, M.D., L.L.D. Volume VII., with 359 illustrations, 17 of them in colors. Philadelphia and London: The W. B. Saunders Co. Canadian Agents: The J. F. Hartz Co., Limited, Toronto. 1921.

The opportunities afforded by the recent great war, to study a multitude of surgical conditions in a wholesome fashion never presented before, has resulted in great advances being made in many lines of treatment.

Many of these advances will be lost unless preserved in recognized surgical treatises.

Dr. W. W. Keen was prompt to recognize this fact and in the seventh volume, supplementary to his previous well-known system, has incorporated much of the material and methods adopted in the medical services of the various armies engaged,

and has thus preserved for posterity this wealth of experience.

The chapter on Gas Gangrene and the various methods adopted in attempting to combat it is excellent, and the final method of debridement as a possible solution of the problem is well described.

The introduction of war methods, of treating fractures, and the chapters on military and civilian orthopedic surgery are a pleasing and exceedingly valuable addition to the work.

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A TEXTBOOK OF MEDICAL JURISPRUDENCE AND TOXICOLOGY

By John Glaister, M.D., D.P.H. (Camb.), F.R.S.E., Professor of Forensic Medicine and Public Health in the University of Glasgow, etc., etc. Fourth edition, with 137 illustrations and one colored plate. Edinburgh: E. & S. Livingstone, 17 Teviot Place. 1921. Price 30 shillings net.

It is but six years or so since Dr. Glaister placed at the disposal of the profession his third edition and now appears from the press-room a still better volume. The fourth edition is larger and contains a good deal of new matter. To any medical jurist who has been following to any extent the wave of crime that of recent months was extended throughout the world, this book will be exceedingly interesting, particularly because the author has devoted a good deal of space to a subject that presents itself at the trial of gunmen who claim that, because they were drunk at the time the act was committed, they should not be charged with the major offence. Dr. Glaister explains fully the relationship of intoxication to responsibility for crime. This Text Book is one of decided merit and should meet with a large sale.

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MICROBIOLOGY

A Text Book of Micro-organisms general and applied. Edited by Charles E. Marshall, Amherst, Mass. Professor of Microbiology and Director of Graduate School, Massachusetts Agricultural College. Third edition revised and enlarged, with 200 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. Price $4.00 net.

This text-book has been thoroughly revised and brought up-to-date by its various contributors and should continue to merit the popularity which it has enjoyed since the first

edition was published. It is more than a text-book of pathogenic micro-organisms. It deals with microbiology in its broad aspects, paying more attention to the purely biological point of view than do the average text-books. Being written by a number of well-qualified authorities, it presents a more or less composite viewpoint, and although not a large book, it contains a vast fund of information for those interested in this branch of science. For students of bacteriology, whether medical, agricultural, industrial, or in the field of household science, this work should be available and frequently consulted.

The Extra Pharmacopoeia of Martindale and Westcott Revised by W. Harrison Martindale, Ph. D,, F.C.S,, and W. Wynn Westcott, M.B. Lond,, D.P.H. Seventeenth edition. Vol. 11. London: H. K Lewis & Co,, Limited, 136 Gower Street 1921. "All rights reserved". Price 17s. 6d. net.

Our readers will find this little handbook chock full of interesting and useful information respecting drugs, old and new. Of particular interest, of course, are reports on the newer remedies such as salreisan, the various organic extracts, lactic acid and the various serums and vaccines. The contents of the various proprietary medicines will be found of practical use, so often are their value inquired of by the patient who so often uses them until the doctor arrives. The analytical memoranda regarding chemistry of the bloody fluids will also be of service to the active practitioner who carries on (as he should) laboratory investigations of his cases. This with volume No. 1 issued a year ago, which we reviewed favorably, will find a welcome-wide in the library of every live physician.

The Canadian Journal of Medicine and Surgery

A Journal published monthly in the interests of Medicine and Surgery

Vol. 50. TORONTO, NOVEMBER, 1921 No. 5

Editorials

ACADEMY OF MEDICINE

With commendable *esprit de corps*, initiative and enterprise, the Academy of Medicine, under the able leadership of President Robert Noble, actively supported by the Council, and the Building Committee, has made a fine addition to its building in the erection of a superb Auditorium surmounted by a spacious, bright, cheerful reading-room, and subjacent cloak and comfort rooms. The Auditorium is to be known as "The Osler Memorial Hall." Dr. Edmund King, Chairman of the Building Committee, has worked indefatigably, and his collaborators, the House and Library Committees, have been as lively as boys at a snake killing. It was good to see the interest taken in this project during the summer months. The alterations and additions will cost in the neighborhood of $25,000. Approximately $23,000 has already been expended; and there are still 200 Fellows who have not been "touched." So the Academy is "on velvet."

The new building was formally opened at the stated meeting on Tuesday, October 4th, when about 225 Fellows sat down to dinner. After partaking of most

of the good things in this life, the meeting was called to order by the President, who delivered his address. This appears elsewhere in this issue and must be read by one and all of our readers. It is a most worthy contribution to the series of Academy Presidential Addresses, and we heartily congratulate Dr. Noble upon his effort. He emphasized the need of well-trained general practitioners, who are filled with the true ideals of their profession. He deprecated, to a certain extent, the present-day tendency toward specialization, particularly when, as in many cases, there is lacking a broad foundation of the knowledge of medicine, which can be obtained only in a general practice. A readjustment of the relationship between general practitioners, specialists and consultants was strongly advocated.

In conclusion, Dr. Noble showed lantern slide portraits of some noted deceased practitioners of Toronto, who, in their lives and practice, had exemplified the highest ideals of life.

After the address was delivered, Dr. H. B. Anderson put in the report of the Board of Trustees, followed by Dr. Edmund King with the formal report of the Building Committee. Dr. W. A. Young, on behalf of an unknown donor, then presented to the Academy a handsome desk and chair for the platform, both of which enhanced the general appearance of the hall, and made a most welcome gift. The Academy has now a seating accommodation of nearly 300, and the Building Committee deserve a great deal of credit in placing such a valuable addition at the disposal of the profession in Toronto, and its vicinity.

THE REFERENDUM

The medical profession has a special interest in the successful issue of the referendum vote. No body of men knows better than ourselves the evils of strong drink, particularly those of us who practise in the cities.

At present in Ontario one of the principle avenues through which liquors can gain entrance to the home is by prescription of physicians.

Many of us object to the responsibility placed upon us in the matter, but while it remains it is advisable that the authority should be exercised with discretion. The idiosyncrasies of the patient, the ailment and the quantity prescribed should be a matter of careful consideration.

The physician is placed on his honor in this matter by public mandate, and in so far as he fails, the honor of the profession as a whole is involved.

The Government has honored the medical profession in trusting it to the above extent in this difficult problem. It is up to us to respond in equal honor, and where it is clear that a doctor has wilfully misused the honor and abased his prerogative for money the profession should repudiate him. He has shown himself unworthy of his high calling.

THE CALL OF THE WILD

We regret that so many young graduates prefer to locate in our already crowded cities and larger towns rather than in villages and rural localities, more particularly in frontier districts, where men are needed much more urgently than they are in the urban centres.

Why ?

We think on account of the roughness of the life, the hardships of bad weather, poor roads and the lack of city attractions and advantages.

This is an unfortunate attitude of mind.

It is there amid the difficulties where experience of great value is gotten, skill obtained, courage created and character developed.

In the city the neophyte encounters a difficult case. What does he do? Generally sends the patient to the hospital or calls in a specialist, rather than tackle the problem himself. With such props, how can a man of this type develop ?

Another objection to the frontier work among the poor settlers is the difficulty of making any money. That is a difficulty. We would suggest that the Government should grant a bonus to young men who volunteer for these hard places.

We should like to have this subject discussed at our next provincial and Federal Medical Association meeting.

LODGE WORK

How often the independent physician (who spurns fraternal work, collecting church offertories and political stumping) is consulted by some forlorn individual who has had a brief ineffectual once over by the lodge physician and in reply to the query "Why did you come to me?" has received the reply that the patient's own physician was **only the lodge doctor.** What more could he expect for a dollar a year? Only the lodge doctor! What a stigma! How can men stoop to the paltry arrangements of lodge and contract work? Their answer usually is, "They get the family." Yes, sometimes. But in entering into these negotiations they are gambling. There is no certainty that they will get a quid pro quo for their work. Mayhap an epidemic like "Flu" hits the community; affecting nine out of ten families. Does the dollar a year pay him for all his strenuous work and worry? No. The principle is wrong. If a lodge or contractor wants a doctor let him engage and be paid for his work at the regular professional rate. It is high time the profession asserted itself in this and in many other vital matters. It is time the expression, "the doctors have no business ability," should be heard no more.

In this connection we must commend the late president of the Ontario Medical Association in his endeavors to prod the profession into a united endeavor to get busy and look after its own interests.

Canadian Journal of Medicine and Surgery

Toronto Canada

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Address all communications to "The Canadian Journal of Medicine and Surgery," 145 College Street, Toronto, Canada.

Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the first of the month previous to publication.

Reprints, including halftones, etc., supplied authors at net cost.

THE ADDRESS OF THE PRESIDENT, ACADEMY OF MEDICINE, TORONTO

By Robert T. Noble, M.B.

It is a particular honor for me, as President of this Academy, to have the privilege of sharing with you the satisfaction of holding a meeting of this kind in our own building. This has been made possible by the foresight of those men who were responsible for the formation of the Academy of Medicine, Toronto, and who were instrumental in securing for our occupation one of the most desirable properties in Queen's Park and by the generosity of the University of Toronto, which has demanded only a very nominal rental. But, as we are only too well aware, the old quarters have become inadequate. This hall that we are sitting in and the work that has just been completed bear witness of our efforts to improve our lot, and who does not hope tonight that these improvements are but a step towards the erection of the building of his dreams,—an edifice more in keeping with the worthy objects for which the Academy was formed. That so much has been accomplished the past year has been due to the unstinted support given those in office by our membership. The older Fellows have faithfully stood behind us in our efforts to acquire better and more adequate accommodation. The younger Fellows have also responded splendidly, and although the ranks of "The Old Guard," which stood by us in the early days, have been sadly broken, yet those who remain have known no flagging, nor grown weary in working hard and late for the betterment of our profession and the growth of this Academy.

For many years to come, we must busy ourselves in the growth of the Academy of Medicine Foundation Fund, which is approved by everyone and wisely endorsed by Council, so that at an opportune time, we may launch forward to the erection of a larger and more imposing structure; but not, I hope, until such time as the extra overhead expenses, which this would incur, shall have been amply provided for. This fund will prove a deserving and permanent investment, which will not be overlooked by the Profession, or by those who have friends in the profession, when they are making

a distribution of their worldly goods. There is no more worthy object to which a medical man can make a contribution.

In accepting the position of President, I fully realized that the best service I could render, would not be adequate to meet the necessary responsibilities, or in any way be worthy of the splendid traditions of the office. I feel that never in the history of the Academy has there been such opportunities. The Council and Officers and every Fellow are full of enthusiasm and ever ready to do their full share. The Fellows, who willingly volunteered their services in the Great War are, (save those who made the supreme sacrifice) back in their usual places, and I think it should be said, to the honor of our profession that, great as were their sacrifices, yet there has been nothing but harmony and cooperation among our Fellows, each one ready and anxious to be of the greatest service in peace as in war.

In attempting to prepare an address that would measure up to the high standards demanded by the Fellows, I feel that my very best efforts must fall far short of that requirement. One is bewildered as he thinks of the multiplicity of questions, which are today of vital interest to the Medical Profession. The Federal Board of Health, the Provincial Board and the Municipal Board have a very wide and extensive programme. The Campaign against Tuberculosis, Venereal Diseases, Cancer, Influenza, Infantile Paralysis, and all other communicable diseases is always an active one. Then we have the important statutes passed for the control of the sale of Narcotics in an effort to solve the problems of the drug addict. Others deal with Immigration, Quarantine, Proprietary Medicine, Pure Food, Drugs, etc. Then we have a wide distribution of Public Health Laboratories with free biological products,—Maternal and Child Hygiene and Public Health Nursing,—Sanitary, Engineering, Industrial Hygiene, Medical and Dental Inspection of Schools, Child Welfare and Pre-Natal Clinics. In all the departments of Public Health, we have excellent Officers in charge, and they are constantly perfecting the field of Preventative Medicine. We have,, as well, the work of our Dominion and Provincial Associations, the various

County Societies, and finally our Medical Schools and Universities, with Dominion and Provincial Registration; and yet, notwithstanding frequent appeals from the Profession, the Government has not provided an amendment of the Medical Act, neither has it given any pronouncement as to the legitimate field covered by the Practice of Medicine. In the meantime, Ontario is being flooded with all kinds of irregulars, and we must take prompt and decisive steps to organize the Profession and promote co-operation among ourselves, and stand united for the attainment of a common goal, viz,—a uniformly high standard of education set by the College of Physicians and Surgeons for all those professing to practise the Art of Medicine, and also, insist that any re-organization of the Practise of Medicine shall come from within ourselves, rather than from the State.

Then we shall be in danger of having some astute politician, who, taking advantage of the unorganized condition of the Profession, will attempt to usher in Compulsory Health Insurance and State Medicine. The very things, upon the complete knowledge of which we pride ourselves, may be quietly taken out of our hands. (Time will not permit me going into these very important matters in detail.)

I would like to talk to you tonight on "The Present Day Status of the General Practitioner, with some Ideals for us to strive and copy."

With the tremendous strides that have marked the progress of Medicine in its many branches, the General Practitioner, in attempting to master everything, must soon be lost in the multiplicity of problems confronting him. His loneliness and necessary isolation tends much to handicap him in comparison with those who are constantly associated with men of progressive thought. The uncertainty as to the future of his practice is a cause of lessened efficiency, detrimental at once to himself and his patient. Having no adequate financial return, the General Practitioner must often look even for gratitude in vain. At times, success in treatment is his only reward. I am a firm believer that thoroughness in methods bring about, not only efficiency,

but corresponding financial returns, and in this respect, as General Practitioners, we are not always as careful as we might be; yet, the Public have a right to demand an accurate diagnosis, lacking which we cannot give intelligent advice.

Does this mean, and do we believe in the passing of the General Practitioner? I am sure that every right-thinking man feels that whatever else goes, the General Practitioner must stand. We have all read Ian McLaren's wonderful story of the General Practitioner. There is just as much need of Dr. McClures today as there ever was. Can any family afford, and would they be willing to do without the moral support and comfort, which the right Family Physician brings to them?

Expert advice, Laboratory methods and X-Ray reports are excellent, but they can never replace the deeply anchored confidence of the tired anxious mother and disconsolate father as they leave a sick or dying member of the family in the care of a conscientious and capable family physician.

Probably the most disturbing factor in the tendency to belittle the General Practitioner is the multiplicity of Specialists (by Specialist, I mean Consultants and Surgeons as well as the more local Specialities.) This could be more largely prevented by a rigid standard being set for all Specialists. We do not want immature Specialists, but must have broad-minded, highly-educated, cultivated men, with large experience,—men who are leaders, and in whom the General Practitioner will have confidence that he can go to him with the assurance that his patient is going to receive the very best than can be given. If this were the case, the General Practitioner would have nothing to fear. His standing in the community would be safeguarded by these outstanding ornaments of our profession, and the proper relationship that should exist between the family doctor and the public would be secure.

The General Practitioner can have no respect or confidence in the man, who is Specialist to one and General Practitioner to another; nor is there anything quite so contemptible as the man who chooses a speciality, not on ac-

count of his fitness for it, but rather, because it brings him a good financial return. This is the very man, who not only belittles the whole profession, but brings discredit upon his specialty, and utterly disgusts the general man, who is expected to support him by referring him cases. For a time, at least, the general public are carried away by such men, and our patients swoop past us until one is made to feel that after all,—is the drudgery and labor of a general practice worth bothering with? If I read the signs of the times aright, the day is not far distant when the General Practitioner will come into his own, and just as quickly as he is reinstated, just so quickly will the foundations of our profession be made doubly secure.

To my mind, the professional relationship of the General Practitioner and Specialist could be greatly improved to the benefit of both, but most of all, for the welfare and future care of the patient. I am of the opinion that the time has come when every Specialist should send to the Family Physician a detailed written statement of his findings. Moreover, if the Specialist would consult with the General Practitioner before advancing an opinion, there would be fewer misunderstandings. If the General Practitioner is to have the aftercare of these patients, surely, for the patient to receive the greatest benefit, and for the General Practitioner to maintain his proper status in the case, every facility should be given him in getting help from every quarter he can. Specialists complain that patients consulting them say they have no general practitioner. This must be a very small number and if they have no one, they should have. Up to the present, the general man is turned out of College and allowed to weather the storm as best he can. I do not think the Specialists knowingly push aside the general practitioner, but with the present day clamour of the Public for the Specialist, it is very easy for the General Practitioner to be absolutely ignored, and it would be equally easy for the Specialist to insist upon his patients maintaining their proper relationship with their doctor.

Specialists have access to the public wards and clinics of our hospitals; if it is necessary for these men to have such hospital connections to keep abreast with the times,

what is going to happen to the General Practitioner with a mere handful of private patients to form his clinic? How is he, under such conditions, to be expected to have the last word in general medicine. Largely through the activities of the Ontario Medical Association, and the co-operation of the universities and various Medical Societies, post-graduate work and lectures have been made possible, but for a long time, this can only benefit a very limited number. Specialists can do much of this post-graduate work with the practitioner in the ordinary round of practice. I have a nose and throat case, an acute abdomen, a difficult baby to handle, an obscure skin lesion. If there was the proper co-operation between the Specialist and Practitioner, each one of these cases would constitute a clinic.

We have the right to expect that if a case is serious and obscure enough to require a specialist, every such case should be clearly and carefully talked over with the general man, and not have it possible, as it is today, for a patient to consult a specialist, and the first knowledge we have of it is, when called to a subsequent illness and discover that an operation has been performed, or some elaborate treatment outlined. I claim that this is not only unfair to the General Practitioner, but it places him in a position of subordination, which he does not deserve, and robs him of the opportunity of consultation with the specially trained man, and consequently, there is no co-operation or agreement as to the future care of the same patient. This state of affairs leaves our patients like sheep without a shepherd, and they quickly fall a prey to the Patent Medicine man, or some one of the long list of irregulars.

This is an age of Group Medicine, and in many respects, this is ideal; but to my mind, every family should constitute a group with the General Practitioner in charge, and he, and no one else, should see to it that every member of that family, as necessity arises, has the services of the best specialists that can be procured. I have never yet asked the gratuitous advice of an expert or for a laboratory report, but what it was cheerfully and freely given. We owe it to our patients to see to it that they get the best of advice, but along the right channels. With the easy access to laboratory facilities, X-ray and highly-trained specialists, it is often our own fault when the patients are allowed to wander away from the fold.

May I speculate into the future a little with the hope that the day is not far distant when specialists will see only referred cases. This would make it imperative for every general practitioner to keep histories of his patients fully worked out. When he wished the advice of a specialist, he would supply him with this complete history of the case, which the specialist could look over in a few minutes. To this history would be added the diagnosis, treatment and prognosis of the expert. If this were done, the Physician would then have in his keeping a history that would be worth something to his patient and to himself. I would like to urge on every general practitioner the necessity of keeping full histories with careful and complete examination of the patient. By so doing, we would increase the confidence of the patient, and in many cases, rightfully secure the fee that would otherwise fall into the specialist's hands.

The ideal of the General Practitioner should be service to his patient in the curing of disease and in the relief of suffering. Great care should always be taken to be sure of our clinical findings. There is a great tendency today to let laboratory and X-ray reports be the last word in making a diagnosis. I am quite sure this is a very dangerous practice. These reports should be used only to confirm our clinical observations, and I would warn the younger men not to let adverse reports influence their diagnosis until every aspect of the case has been carefully gone into. It is surprising how seldom a carefully made bedside diagnosis is wrong, and I feel this is a phase of teaching that is not receiving the attention it deserves. There is no profession in which it is easier to practise quackery and charlatanism. We should always be thorough and truthful with our patients, and careful not to kindle false hopes in their minds. We have had a glaring example of this in our own city the past year. Newspaper publicity was largely responsible for kindling the hope in the minds of thousands that their prayer for a cure of cancer had been answered; even our research laboratories for a time, were anxious to know if a panacea had at last been found. Inquiries came in from all parts of the globe, and many patients received treatment. If the hope had been well-founded, what a boon to human-

ity; but can you imagine anything more harmful to our profession, or a greater wrong done to the sufferers of this disease, when willing to sacrifice everything, they grasp at the last straw in vain. The work of our special Cancer Committee was highly commendable, but I do think that, when their opinion was so adverse, some active measures should be taken to control further continuance of such treatment. In future, I think it would be better for the Academy to take action in such matters promptly.

The late Sir William Osler, in his address to American and Canadian students, before leaving for Oxford, said "The flower of our calling is the cultivated General Practitioner."

With the hope of being more easily understood and less tiring to you, I am going to show you pictures of some men, whose lives and work proved the truth of Sir William's observations. These men were the flower of our calling, and were, during part of their career, cultivated general practitioners, and having been such, it is not surprising to learn that many of them developed into eminent specialists and great teachers and lived and died an ornament to our profession.

May I first venture a word to those who are engaged in teaching? Having never taught myself, I cannot intelligently offer any criticism, even if I would; but as an interested onlooker, it would seem to me that the present day appalling lack of respect of youth for age, of junior for senior, which seems so characteristic of our time, has invaded even our halls of learning. The youth of today seems a vastly different problem than even a few years ago. There are no critics more exacting than a body of modern students. They quickly pick out the defects, but at the same time, are just as quick to discern merit in the man who has a real message for them.

Teachers are born,—not made, and they must not only hold up before their students their conception of the very highest ideals of medicine, but they should be men who are living examples of those ideals to which they would have their students attain. From the beginning to the end, the

life of the real teacher will be largely one of sacrifice, so that the man, who constantly looks for some personal gain, starves not only himself, but, also, his students. It should not be a question of how much a teacher can get out of his appointment, but how much can he give to the students and to the institution, of which he should be an important part.

I would like to see our students graduate as broad-minded general practitioners, with a useful practical training that will enable them to meet the real problem of their profession. Once in practice, their viewpoint will gradually widen, and they will develop into useful men with large experience, who can advantageously turn their hand with confidence to any one of the specialities, to which they find themselves best adapted.

My hope is, that these pictures, will help make clear to us the necessity of teachers impressing on students the high type of men we want in the profession, and that we must all strive to copy those who have stood the test and proved themselves worthy.

Lantern slides were shown with appropriate comments of the late W. T. Aikins, William Britton, John Caven, John L. Davison, R. J. Dwyer, Frederick Fenton, W. B. Geikie, Andrew Gordon, J. E. Graham, H. J. Hamilton, Arthur Jukes Johnson, Lachlan McFarlane, Thomas McKenzie, Sir William Osler, George Peters, R. A. Reeve, B. L. Riordan, James Rickardson, J. F. W. Ross, James Ross, Bertram Spencer, R. A. Stevenson,, Luke Teskey, James Thorburn, Matthew Wallace, H. H. Wright, W.M. D. Young.

Following these, was one of Sir Luke Filbes' beautiful painting of "The Doctor". This picture speaks for itself. It is the artist's interpretation of the Family Physician in a desolate home where there is a very sick child. Any one of these men, whose picture I have shown tonight, has many times acted out in real life what is here so beautifully depicted on the canvas. Was I wrong, when I said, a few minutes ago, that whatever else goes, the General Practitioner must remain?

The last slide was from one of Copping's wonderful paintings. It is the artist's conception of the Great Physician surrounded by people who are sick. The central figure in the canvas is our only perfect ideal. His work and teachings have been the standard for the highest ideals throughout the ages; but I am afraid that with the present day tendency to commercialize medicine, we often lose the finer and better things of our profession, for to my mind, there is no calling in life where His work and His teachings are more applicable than to the honorable and dignified profession of medicine.

THE FURTHER EXTENSION OF COMMUNITY INTERESTS TO HOSPITAL PATIENTS

By N. H. BEEMER, M.D., Medical Superintendent Ontario Hospital for The Insane, Mimico, Ont.

Recognition of former personal habits and activities of mental patients plays an important part in their management and treatment. Technical skill and dexterity in the performance of manual work is acquired by frequent repetition of certain specific acts, and after continued practise for a sufficient time the performance of these acts becomes measurably automatic and may be said to constitute a habit. The achievements of the athlète, the ballet dancer, the pianist or the mechanic depend upon the ease and rapidity of the motor impulses travelling in their accustomed pathways. It follows also that the motor impulses required for the innervation of the muscles involved in those acts are much less exhausting on the nervous centres because they travel in well established and constantly traversed roadways. In other words a habit either of work or indulgence may be explained as the consequence of a succession of impulses taking the direction of the least resistance, and the least resistance will be found in that course which has been so frequently travelled by similar impulses.

In an acute psychosis all the individual habits and activities are interrupted and the impulses being for the time beyond control, fail to follow their accustomed pathways. We all know that as soon as these vagrant impulses can be brought under control again the patient will be much more comfortable and will have progressed a long way on the road back to normal. We know, too, that if we can induce a man or woman to take interest enough in his or her former occupation to pursue it again even in an intermittent manner there will soon follow improvement in the mental condition, and this process is in reality the re-establishment of former habits of nervous energising. As

soon as the impulses begin to travel in their old accustomed roadways there is almost at once a restored sense of well being, or at least a diminished sense of ill being. Then follows closely an increased interest in these specific performances and then interest in corelated subjects.

Now the questions which I have so often asked myself in this connection are these: Do our Hospitals provide our patients with all the possible facilities for the re-establishment of former helpful habits of occupation and entertainment? Are our efforts in applying the principles of so-called occupational therapy addressed to the opening up of the long established though temporarily closed channels or pathways of nervous currents? Do we faithfully and consistently try to encourage the resumption of life-long habits, and with them the return of normal reactions? How much community interest do we supply to our patients? Should they not be encouraged to engage in work by offering them the common hope of reward that sweetens labour? And should they not be permitted to exchange the symbols of value which they have patiently and laboriously earned for the things which they most desire?

The patients in our Hospitals are advisedly told by their physicians that if they wish to get well they should engage in some form of work. They have it explained to them that work with the muscles involves destruction of tissue, and this in turn calls for a more rapid construction of tissue in order to repair the waste, and that when the processes of destruction and construction are active with the balance on the side of construction they will inevitably feel better. They are further advised that work means coherent effort and that coherent effort involves coherent thought and that coherent thought is opposed to and gradually eliminates the mental incoherency. No matter what is the cause of the mental illness, these activities cease as soon as they become seriously ill, and it is one of the aims of the hospital management to provide appropriate measures to promote the re-establishment of those activities in a properly graded and modified degree. The

men have occupation offered to them in the various departments of the hospital service; on the farm or in the garden or on the lawns; with the engineer or carpenter or gardener, or mason, baker, tailor, or painter. The women have sewing, knitting, laundry and kitchen work and housekeeping in all its many forms to engage their energy. In the sphere of amusements they have dancing, concerts and movies in the winter season, and in the summer they are provided with out-door sports, as cricket, football, tennis, bowling, motor boating and motor drives on the highway, and picnic parties under the trees. On Sunday mornings there is Divine Service, and in the afternoons sometimes band concerts, and music and singing parties in the cottages.

Since Confederation, when the hospitals came under the jurisdiction of the Ontario Government, it has been the fixed policy of the Government to make provision for the introduction of all the foregoing community interests to our patients, and it has been done in a whole-hearted and generous way. Any reasonable thing which a Medical Superintendent might consider helpful has been willingly granted, and altogether there is no civilized country in the world where more liberal and scientific measures have been provided for those who are mentally afflicted.

There is still, however, another important step forward which I believe will be taken, but there is only time now to give the merest outline of it. I refer to the introduction of a plan for the reward of those who engage in any kind of work at the hospital. A woman who scrubs the floor or one who washes dishes or one who works all day in the laundry or kitchen, may be told that such occupation is beneficial to her, and it is, but she would often prefer to sew or knit or do fancy work. If all kinds of work for both men and women in the hospital were acknowledged to be worth a fixed value per hour, and the token representing that value could be exchanged for clothing and comforts and a few simple inexpensive luxuries, all of which are now supplied gratuitously by the

Government from the institution store-room, then all patients in the hospital would at once have provided for them the greatest and most universal community interest, namely, reward for labour.

A group of half a dozen or more little one-roomed shops, with good display windows, could easily be constructed by institution labour along a little well arranged street, where at specified hours men and women in their daily walks about the grounds could see in the shop windows the things they would like to possess, just as they have done all their lives in their home town or village, and they would be able to see and know the price of the coveted articles, and they would then have a continuous and powerful selfish interest to energize and to work for the necessary checks which would enable them to purchase the desirable goods. Every day they would see something new and have something fresh to talk about. When a hat or cap or a bonnet or a pair of boots or a tie or a wrap or a dress or a coat had been the object of desire and coherent effort for succeeding days to acquire it, how much greater will be the value to the owner and how much more comfort will it give in the wearing, and how much longer will it last, than if the same article had been handed down from the store-room gratuitously to the patient as a present. Then how helpful would be the educational influence of such a system where observation, comparison, discrimination, initiative and finally possession would have full play in their otherwise monotonous and objectless lives. The development of a measure of this kind would certainly stimulate occupation along familiar paths and would, from a practical point of view, be economical both on account of the increased production which would follow and also because of the diminished destruction which would result. This practical economy would, of course, be the outcome of the increased coherent effort and the simultaneous coherent thought.

Along the little street I would like to see the very things these men and women have on the streets in their

own villages and towns at home. In one little shop there would be hats and caps and collars and ties and gloves and mitts for men, and next door would be a similar room for parallel requirements for women. Another little shop would contain men's boots and shoes and overshoes and rubbers, and next door would display the same kinds of goods for women. One shop might appropriately have fruits and sweets and buns and cakes, so well known to school boys and girls, the delectable tuck shop, where the patients' checks could sometimes be exchanged for helpful little comforts. Another room might have magazines and illustrated papers and newspapers, and possibly books, and pipes and tobacco for men.

The details of a measure of this kind have been carefully thought out and present no insuperable difficulty; indeed, they would also add greater interest to the lives of the nurses and attendants in carrying them to a successful consummation.

Why should men and women who have the misfortune to become ill mentally be deprived of one of the greatest of human interests, the earning and saving and buying the things they desire and need as soon as they enter the doors of a hospital? I think you will agree with me that we should try to get more of the sunlight of life as reflected by this measure of further extension of community interests to shine into the darkened and clouded minds of those who are ill in our Ontario Hospitals.

COMMUNITY PRIDE

On a transatlantic steamer which landed in Liverpool several weeks ago there was a member of the Board of Directors of the Toronto General Hospital who made the public assertion that their hospital is the finest hospital in the world, and that his Board and his Community proposes to keep it so. What a splendid spirit and what a wonderful example this is to the boards of managers of our hospitals and to the citizens of our communities. It is almost universally the constant effort of our professional hospital staffs to establish a true *esprit de corps*, to improve the quality of professional service, to better the statistics of the institutions, to excel in the friendly competition with similar hospitals and to make available their wealth of material for teaching purposes, withal to enhance in every way possible the value of the hospital from the scientific as well as the public health viewpoint.

Are the lay boards of managers doing like work in their field of endeavor, are they like the man from Toronto just mentioned, all determined to make their hospital, not one of the best, but *the* best one in the world, with the added determination of keeping it so? Unfortunately this is true in only the smaller number of instances. Community spirit and community pride constitute a well known American characteristic but is in the majority of instances true inversely to the size of the community whereas the need as far as the hospital is concerned is the opposite. Professional money getters for charitable purposes of merit, invariably state that a drive for hospital funds is most successful in the smaller communities by virtue solely of this community spirit and pride. Our larger cities particularly must look to it that their lay hospital boards are composed of men of broad business experience to bring able and economic business management to the institution, thus to inspire the charitably disposed people of the community with the fact that all donated funds are used with discretion to their very best advantage and that endowment moneys are safely and efficiently invested for the same purpose. Irregular financial practice on the part of hospital trustees, either by insecure investment of funds to obtain greater returns or the use of trust funds to meet ex-

penses in times of stress with the hope of reimbursement in times of plenty, shake the confidence of the rigidly scrupulous man of means who gives for charity. It is far better to curtail operation than to spend what has not been contributed. Finally, the hospital trustee must be alive to his responsibility, which is not only to see that the institution is properly conducted but also that the necessary funds are made available for this purpose, and the development of proper community spirit and community pride are part of this service. His expended energy and his devotion to the cause of public health and consequent community happiness should be as great as that of the also unpaid physicians laboring in the same institution for the same end.—*Journal of N. Y. State Medical Association.*

THERAPEUTIC IMMUNIZATION IN ASYLUM AND GENERAL PRACTICE, by W. Ford Robertson, M.D., Pathologist to the Scottish Asylums. Edinburgh: E. & S. Livingstone, 17 Teviot Place. Price 15s. net. 1921.

There is perhaps no Branch in the Practice of Scientific Medicine that is receiving more attention today than that of Immunization, or the attempt to arrest the cause of Disease—in other words to stop the leak at its source—It is for that reason that Dr. Robertson's book, Therapeutic Immunization, is of paramount interest. He is to be congratulated on placing at the disposal of the Profession a volume that cannot but bring more prominently than ever before it the value of "Preventive Medicine."

A LABORATORY MANUAL AND TEXT BOOK EMBRYOLOGY by Charles W. Prentiss. Revised and rewritten by Leslie B. Arey, Professor of Microscopic Anatomy, Northwestern University Medical School. Third edition, enlarged. Illustrated. Philadelphia and London: The W. B. Saunders Company.. Canadian Agents: The J. F. Hartz Co., Limited, Toronto. 1920. Price $6.00 net.

Since the time of its first appearance in 1915 this manual has been revised and reprinted four times, suggesting that it has proved its worth to a large number of students and teachers. In the present edition no radical alterations have been made in the structure of the text but each chap-

ter has been revised and brought up to date.

The first two chapters deal in a general way with origin and development of the germ cells, and also with the earlier changes following upon fertilization. The succeeding chapter is devoted to the chick embryo and leads up to the major portion of the book in which the pig and human embryos are considered in detail. The treatment of the development and structure of the pig embryo is particularly stimulating and instructive, due in part to the large number of good illustrations and diagrams based on sections and reconstructions. One suggestion might be offered, namely, that in subsequent editions references to the literature be given, particularly in the opening chapters.

Dr. A. H. Veitch has opened an office at 124 Bloor St. West and will confine his practice to Diseases of the Eye, Ear, Nose and Throat.

FOOD PRODUCTS—Their Source, Chemistry and Use, by E. H. S. Bailey,, Ph.D., Professor of Chemistry and Director Chemical Laboratories, University of Kansas. Second revised edition, with 92 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. Price $2.50 net.

In this book the general principles of food production, manufacture and preparation are discussed so that the reader may have a practical knowledge as to what good food is and where it may be obtained. It covers the ground sufficiently for College and High School work, and will appeal to nurses, hospital superintendents, doctors, and interested laymen. It treats of all the important foods and drinks, source, preparation, composition, dieteic value, and use. Such by-products as confectionery, grape juice, and brandy are considered. Illustrations add clearness to the text.

GENERAL PATHOLOGY—An introduction to the study of medicine, being a discussion of the development and nature of processes of disease, by Horst Oertel, Strathcona

Professor of Pathology and Director of the Pathological Museum and Laboratories of McGill University, and of the Royal Victoria Hospital, Montreal, Canada. New York: Paul B. Hoeber. 1921. Price $5.00.

An outstanding book, clearly written and in the scientific spirit, giving the reader a fine interpretation of pathologic problems. This book commends itself to the average practitioner (who may hitherto looked askance at pathology) because: (1) It presents pathological processes as expressions of physico-chemical laws; (2) Great education value accrues from a study of the historic development of ideas giving an understanding of current ideas; it helps to visualize possible pathological occurrences based on anatomical conceptions of the subject.

THE ALBERTA HOSPITAL ASSOCIATION

The conjoint Annual Convention of the Alberta Hospital Association and the Alberta Association of Registered Nurses, will be held in the new Medical Building of the University of Alberta on November 8th, 9th, 10th and 11th.

As the Executive Committee have gone to a great deal of trouble in order to make this meeting a success, and as the quality of the papers to be read is of the very highest, we would urge all members to make arrangements to turn out and be present at the meeting in question.

DR. R. V. BRAY DEAD

Dr. Reginald V. Bray, a prominent member of the medical fraternity at Chatham, passed away at his home on October 2nd, after a few days' illness of pneumonia. He was coroner of the county, Grand Trunk and Wabash Railways physician, county physician and chairman of the Chatham Board of Health, of which body he hab been a member for several years.

THE INTERNATIONAL MEDICAL ANNUAL—A yearbook of Treatment and Practitioner's Index. 1921. Thirty-ninth year. Associate Editors: Carey F. Coombs, M.D., F.R.C.P. (Medicine), A. Rendle Short, M.D., B.S., B.Sc., F.R.C.S. (Surgery). New York: William Wood & Co. Price $6.00.

The publishers are to be congratulated upon the thirty ninth annual volume of The International Medical Annual. It is indeed a triumph under conditions of recent years that this splendid Annual Digest of affairs Medical has appeared so regularly. It is truly a "Multum in Parvo" and without going into details, which are not permissable, owing to a printers' strike, we heartily commend this book to one and all of our readers.

INTERNATIONAL CLINICS—A quarterly of illustrated clinical lectures and especially prepared original articles on treatment, medicine, surgery, Neurology, Paediatrics, Obstetrics, Gynecology, Orthopaedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and other topics of interest to students and practitioners by leading members of the Medical Profession throughout the world. Edited by H. R. M. Landis, M.D., Philadelphia. Volume 11., 31st series, 1921. Philadelphia and Montreal: The J. B. Lippincott Co. 1921. Price per volume $2.50, or $10.00 for series of four.

This number, among its clinics, has two of outstanding interest. Diagnosis of Heart Disease, by Talley; Radical Surgery as an Aid to Efficient Radio-Therapy on the Apparently Hopeless cases of Caramoma. In Medicine Weher contributes an article on Ateleiotic Dwarfism; in Paediatrics Hempelmann writes on Tubercolosis in Infancy; industrial medicine is represented by a paper on The Hospital Fund of the U.S. Reclamation Service, by Coulter. In Surgery there are an especially interesting series of articles:—Surgical Kidney, by Foster and Nuller; Pyelotomy by Eisenstaedt; Brain Tumors by Sharp; Facial Palsy and Treatment by Nerve Anastomosis by De Parva Neira; Technic of Hysterectomy by Goldstone and Wounds of the Vessels of the Face, Neck and Limbs, based on 443 cases by Meurer.

CORNER-STONE FOR WING OF HOSPITAL IS LAID

The corner-stone for the new memorial wing of the Public General Hospital, Chatham, Ont., was laid at 3 o'clock, on Sept. 1st., amid impressive ceremonies. Dr. T. K. Holmes, the veteran surgeon of Kent county, conducted the ceremony, in the presence of many hundreds. Addresses were given also by Mayor Fred. H. Briscoe, A. B. McCoig, M.P. for West Kent, and County Warden John F. Fletcher.

The new building is of fireproof construction, and is 136 feet in length and 40 feet in width. All modern services will be installed and a telephone will be provided for every room.

The connecting link between the new and the old buildings will be used as a sun parlor.

MEMORIAL HOSPITAL STARTED AT ORILLIA

His Honor Lieut.-Governor Harry Cockshutt laid the cornerstone of the Soldiers' Memorial Hospital, Orillia, on Sept. 21st. An address of welcome was presented by Alderman W. H. Tudhope in the absence of Mayor Anderson. Rev. N. H. McGillivray offered the dedicatory prayer, and short addresses were delivered by Mr. George Thomson, Chairman of the Hospital Board, who presided; Mr. C. H. Jermey, Reeve of Orillia township, and Mr. M. B. Tudhope, Secretary of the Hospital Board.

The hospital is being erected at a cost of $110,000 and is the gift of the citizens as a memorial to the 110 soldiers from this community who fell in the great war. The hospital will contain fifty beds.

LIQUID PETROLATUM SQUIBB

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The all-embracing reason why many physicians who require a mineral oil for internal use, specify *Liquid Petrolatum Squibb, Heavy (Californian)* is that it is a liquid petrolatum which in every respect is exactly as it is represented to be and is marketed in accordance with the ethics of the medical profession. In addition to this general statement several specific reasons may be enumerated, the first of which is that it is a genuine naphthene oil. The naphthenes are hydrocarbons which differ essentially from the paraffins and other members of the methane series, and also from the hydrocarbons of the aromatic series. They are capable of a viscosity greater than is possible for a paraffin oil, resist chemical changes to which a paraffin oil would yield, do not crack easily during the process of refining and in other respects they are to be preferred to an oil which consists wholly or even largely of paraffins. Again, the Squibb mineral oil has a high specific gravity and also an exceedingly high natural viscosity. While high specific gravity is not necessarily in itself of great value, it is a desirable characteristic; but relatively high viscosity in respect to a mineral oil intended for internal use is of paramount importance. Liquid Petrolatum Squibb is the most viscous mineral oil for internal use that the market offers and this high viscosity is the characteristic that tells in clinical work. Therefore, the physician who wishes his patient to use the most efficacious mineral oil prescribes Liquid Petrolatum Squibb. Further, the Squibb Mineral Oil is palatable. It is free from odor, color and taste. Therefore, patients will take it readily and be willing to continue taking it—these are very important factors, because it is only by persistent dosage that the physician can bring about the results he desires.

The Canadian Journal of Medicine and Surgery

A Journal published monthly in the interests of Medicine and Surgery

Vol. 50. TORONTO, DECEMBER, 1921 No. 6

Editorials

READING MEDICINE

The older practitioners in medicine gained most of their knowledge from reading books on the subjects. Most of them read too much. This was because they lacked opportunities to do laboratory work and study disease at the bedside. When any of us went to London or Edinburgh for post-graduate study—25 years ago—our knowledge of book medicine was often noted by the professors. We had apparently read more than the student in the old land, but seemed not to have enjoyed their opportunity for the first hand study of disease at the bedside. Happily that has been changed, and the commendable old country practise of clinical instruction has been more and more emphasized on this side of the Atlantic.

Besides, of late, laboratory work and pathologic demonstrations have become more and more stressed; so that now, what with the outside attractions of movies, dances and auto outings, and a some-what overloaded primary curriculum, the poor student is so hard put that he cannot find time to read what is even co-related with his practical work, let alone read about

such diseases (and there are many of them) about which it is impossible to do bedside study or conduct laboratory work on.

One way out is for the student to read during vacations. There are many excellent monographs published on various subjects, which students would do well to lay out and go through during holiday periods During term, we can only suggest that every student make a program—systematize his work. The employment of tutors who will direct students how to read, what to stress and what to pass over would be a wise move on the part of the University. Reading clubs might be formed, students reading up such subjects as they are particularly interested in, giving their mates a resume of what they had *"dug up during their leisure hours."*

ORPHANS AS GUINEA PIGS

Under this caption Konrad Bercovici has contributed an article to the *Nation* (of New York), calling attention to certain observations made at the Hebrew Infant Asylum by Dr. Alfred Hess and Mildred Fish on the effect upon the children when put upon diet minus the juice from certain citrus fruits.

They noted that when milk subjected to certain degrees of heat to render it free of pathogenic bacteria was administered for a time the children developed initial symptoms of scurvy.

No doubt as soon as these symptoms were observed and noted, the children of the asylum were at once put on the citrus juices again and were soon restored to normal.

Dr. Hess points out in a review of scurvy in the world at large and over the last 300 years that children with pronounced scurvy were susceptible to infection, particularly pneumonia.

We think Mr. Bercovici was under the impression that the children to whom the pasteurized milk was given, without the lemon and orange juice, were in somewhat the same condition as those in whom well-developed scurvy appeared, reported as having occurred throughout the world over the period mentioned.

Every physician in general practise in a big city must have observed these under-fed, partial ricketty and scorbutic children who have been nourished on pasteurized milk and other non-vitamine containing food. The value to them of the work of Dr. Hess and his collaborators in establishing the value of adding lemon juice and orange juice to the dietary of infants is incalculable.

The writer in the *Nation* does not lay blame on the asylum but upon the medical profession at large for not reprobating such experiments.

As the profession and the public have reaped a thousandfold because of the observations of Dr. Hess and his associates, there has been no disposition on their part to do anything but praise such work.

By and large, the *Nation* has made a mountain out of a molehill.

ANOCI ASSOCIATION

The practise of Crile of Cleveland of preventing physical and psychic shock in patients requiring operation is commending itself to many surgeons. There are, of course, still many doubting Thomases. It seems a good deal of pother to administer nitrous oxide and oxygen to patients several times prior to operation so that they do not know what or when it has happened until all is over. The obtunding dose of morphine just prior to the operation must not be forgotten; then during the process of the operation many injections of novacance are given to block the vibration which gives rise to pain. Then there is the post-operative injection of quinine and urea hydrochlorid. The administration of the general anesthetic requires an elaborate apparatus and a careful anasthetist. But it all pays. Crile's latest figures are remarkably good and cannot be gainsaid.

The hospital officials—doctors and nurses who have to do with the patient, treat the patient with the utmost kindness and instil into his mind as far as possible the fullest confidence, which begets mental composure—a great element in the prevention of psychic shock.

Crile's method is worth a trial.

Canadian Journal of Medicine and Surgery

Toronto Canada

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the first of the month previous to publication.

SOME MEDICAL TEACHERS OF THE NINETIES

Thos. McCrae, M.B.

The announcement that Professor Cameron has resigned the position of Professor of Surgery has brought forth from Dr. A. B. Macallum a well-merited tribute to the important part which he played in the re-establishment of the Medical Faculty of the University of Toronto. To many of his students the resignation will suggest more personal memories and it will be difficult for them to think of the Department of Surgery without Irving Cameron.

Looking back to the student days of the early "nineties" it is interesting to try and estimate what each teacher was trying to do and what he did for us. The Medical students of the University of Toronto at that time were fortunate in the teachers they had. Probably no Medical school on the continent boasted a more efficient and stimulating faculty. The teachers in the pre-clinical branches and in the departments of Medicine and Surgery stand out particularly in the memories of their times. Of the four heads in the departments of Medicine and Surgery, each had his characteristics and offered in many particulars a contrast to the colleague in his own department. It would be difficult to have two stronger teachers than the two heads in Medicine—the late J. E. Graham and Alexander McPhedran. They used dissimilar methods but came to the same conclusion by different roads, a great advantage for the students under them. As a student my impressions were summed up in the observation that if Dr. Graham asked what were the complications of a disease he was pleased if the student stated a rare one first, which often called forth an instructive discourse. But Dr. McPhedran was not pleased with the mention of the rare complication first; the common ones should be given first, the unusual ones should come later. Some of their bedside clinics are as clear in my memory as if they had been given yesterday. Can there be any better tribute to the character of their teaching?

The two heads of the Surgical department were in great contrast. The late Dr. MacFarlane was often fiery and always interesting. Memory brings back the scene and the words

when in answer to the question as to the proper treatment of a strangulated hernia, the unfortunate student answered that he would poultice it. Dr. MacFarlane was fully equal to the occasion. For him the actual doing was the principal thing and matters behind the obvious task in hand did not seem to interest him greatly. He placed emphasis on the practice rather than in the principles of Surgery.

Looking back on Professor Cameron's teaching the strongest impression which I have is that he was first of all interested in teaching principles. A few of the students had some inkling of this at the time but your average student is not greatly interested in principles. "Pointers" appeal more strongly to him. The well-known story of the reply given by the teacher to a student who asked for some good pointers ("principles are what you need and not pointers") which has been ascribed to so many teachers, might well be told of Mr. Cameron. If the student could discover that a few principles properly applied would solve many of his problems and that when in doubt or difficulty they are always of use, there would be greater interest in them. But after a good many years of teaching the realization comes that the majority of students are not interested in principles very greatly at the time. Fortunately they are often absorbed unconsciously and bear fruit in after years. Professor Cameron has the satisfaction of knowing that his teaching is bearing fruit in sound surgical practice by his pupils in many lands. In placing emphasis on Mr. Cameron's insistence on principles it is not to be thought that he did not dwell on the practical side of Surgery. He did, and in a very thorough way, but always with the desire to have the student know the "why" of his practice. I can recall bedside clinics in which we could not see the bearing of the questions at first but gradually the application of the points, which he was striving to bring out, to the specific problem before us became evident. His teaching was of the Socratic school and there was always the effort to make his students think and think accurately.

For many of us—doubtless the majority—there was often the regret that we did not know more Latin and Greek for Mr. Cameron has a large number of classical quotations ready for any occasion. We always tried to look as if we understood them. With this, perhaps naturally, went a nice taste in the use of words. The average Medical man uses words carelessly

and any teacher who insists on accuracy in the langugage of students deserves their gratitude. It is to be feared that he often does not receive it, at any rate until later. We had many illustrations of the value of a knowledge of the derivation of words in understanding Medical terms.

As a chief he was always most considerate and kind. In those times, before the days of operating room nurses, the house surgeon had to prepare the instruments for operation. Mr. Cameron required very few instruments and this lessened the burden of preparation. Sometimes his directions were almost too simple, as when in answer to the inquiry as to what instruments he wished for an operation, one heard, "Oh, a sharp knife and a piece of string." Of his technical skill this is not the place to speak, but reference should be made to his coolness when some sudden emergency demanded instant decision and prompt action. No one ever saw him flurried or disturbed by an emergency. The story of how his wise suggestion to an operating surgeon in a foreign clinic saved a life in a sudden emergency is an example of this. This possession of equanimity, on which Sir William Osler laid so much stress, is a striking characteristic and it was a rare happening indeed which ever affected it. One occasion comes to mind on which his usual equanimity was retained with difficulty. Mr. Cameron was doing a venesection on a patient who was a farrier and accustomed to bleeding horses. He kept up a running fire of comment and criticism, the burden of which was that he would like to show Mr. Cameron how a venesection should be done properly. We could see the laughter in Mr. Cameron's eyes, but it did not show otherwise.

There were stories among the students as to the many hours he worked and the few he gave to sleep. Perhaps these traditions were supported by the times at which he visited the hospital. If he had a patient who was very ill he was sure to appear sometime in the night, after midnight by preference. At the Gerrard Street entrance to the old Toronto General Hospital there was an irregularity in the boards of the driveway at the gate—at any rate in '95-'96—so that entering carriages made some noise when the wheels passed over it. Different vehicles made different sounds and that of Mr. Cameron's gig had a characteristic quality, especially easily recognized in the quiet of night. Perhaps he did not realize why his house surgeon so often met him in the hall. On those late

visits he not infrequently came into the house officers' sitting-room and sat down for a chat with any of the men who chanced to be up. These were delightful occasions for his talk was always interesting and especially when he discussed men and clinics, which to us were known only by reputation.

One cannot think of the surgical department of the "nineties" without the names of two other teachers being associated, namely, George Peters and Alexander Primrose. The untimely death of George Peters was a tragedy. He had in many ways the most original surgical mind that Canadian Surgery has produced and his death was a great loss both to Surgery and to the University. As to Dr. Primrose's teaching, the greatest tribute ever given to it, to my thinking was to see his lecture room in the anatomical department filled for a series of voluntary extra lectures on Surgical Anatomy, given at 8 a.m., the majority of the students coming from the neighborhood of the old General Hospital. When all the members of a class are willing to get up an hour earlier for an extra lecture, not down in the curriculum, you can easily decide as to the kind of teaching which is given.

Many honors have come to Mr. Cameron and all his students and friends wish that there may be many years in which he can enjoy them. One may say that he is honored in the hearts of all the students who have been taught by him. Kind and generous always in his relations with his students, we have an affection for him which we have difficulty in putting into words. Mr. Cameron can feel that he has done much himself to save life and lessen suffering, but who can estimate what he has done through the students who have carried his teachings into practice far and wide? It is a happy thought for any teacher to carry with him when he feels that the time has come to take the title of Emeritus.

THE INTERNE

At a recent meeting of the Brooklyn Medical Society, reported in the Long Island Medical Journal, an address on the *Medical Education of the Interne* was delivered by Dr. Wm. Pepper, Dean of the School of Medicine, in the University of Pennsylvania. The good old-fashioned hospital interne ser-

vice, where the interne was expected to do a great deal of work and pick up what he could, must now be changed, and visiting staffs must realize that they should actually be teachers. Eleven medical schools now demand the year in an approved hospital before granting diplomas. Ten states require those wishing to obtain a license an interne year spent in an approved hospital. When this rule took effect in Pennsylvania, there was great rejoicing in the hospitals. The hospitals found, contrary to expectation, that by this statute they were being coerced more than the internes. The result has been in that state, that the internes get a better service than before. Certain hospitals are informed that unless they give a better service to internes, medical schools will not receive their students to take duty in them. The schools have not had as much influence in the hospitals as the state authorities have. The latter has the law behind them.

Dr. Pepper queried the graduates of one of his classes, who had gone into interne work: was their service satisfactory? What work were they given? How much laboratory and autopsy work? What opportunity to assist at operations? Were they allowed to conduct labors? If so, how many? Had they any suggestions whereby the interne year could be made more valuable?

Answers showed that in many hospitals the chiefs do not teach the internes as they should, and that they do not devote enough time to routine hard work. Staffs and internes should meet and discuss cases. The staff should carefully check up at the bedside, the interne's physical examination, discuss the diagnosis and treatment, and make a follow-up study jointly of the case to the operating room or the autopsy table.

One difficulty has been the incapability of members of the staff as teachers. The interne today is a much better educated man than he of twenty years ago, and requires a better teacher,—one who is familiar with all the refinements of the medical curriculum. Non-teaching hospitals should give more thought than formerly to securing attending physicians with teaching capacity. This, of course, is not the only point to consider, if a hospital depends for its patients upon its staff. But, in future, to get good internes there must be a capable attending staff. A poor visiting staff means a poor interne staff. Ten years ago the interne shunner, or the teaching hospital, where "he was told how to do everything

or was not allowed to see things done," not being allowed, e.g. to tap a hydrocele or do a paracentesis.

Hospital staffs should feel honored when they realize that in teaching these internes, not yet graduated, that they are virtually on the medical college staffs. In such hospitals the chiefs should take up this teaching work seriously. These men must make a proper preparation for this teaching as do the regular teachers on the university staff. This must be done if we are to lessen the shortage of internes.

Following Dr. Pepper representatives of various Brooklyn Hospitals reported what they were doing in respect to internes. At the Long Island College Hospital, the service is arranged so that medicine and surgery both take one year. In surgery the Resident is in charge of the entire service. He is responsible for the work of the internes and is first assistant at operations. His assistant is in charge of the fracture service and acts as first assistant on the second operating team. Four internes are assigned to wards in rotation. They take histories; do physicals, laboratory work, and act as second assistants at operations on their own cases. They do all post operative dressings on their cases. The internes are present at ward demonstrations given by the professors. All their work is checked by their attending surgeons. The aim is not to make operative surgeons, but to give a fundamental training in surgical diagnosis, treatment and after care.

The Methodist Episcopal Hospital holds that for the proper training of an interne a hospital must have a strong staff, filling the various positions in medicine and surgery. There should be complete equipment in the laboratory and X-ray and other departments. Each interne should rotate periodically from department to department so that he may acquire a broad and comprehensive training. Training an interne exclusively in one department is unsatisfactory to the man and to the hospital. This hospital gives a two-year service to eight men, who go by progressive steps through all departments. This enables the interne to learn his capacity and capability for each line of work. He is broadened by association with all the heads of departments, assimilates their methods, ways of thought and technique. He absorbs the best that each reveals. He notes how each meets and handles the various problems and different people. He notes

details not to be imitated. Specialization must come after generalization. The mixed training makes for better and broader training and thorough preparation for later special work.

The monthly conferences of the whole staff at which histories, mortality and morbidity are discussed have proved a great factor in the betterment of hospital morale. Every man is thereby kept on his metal: Internes write better histories, make more careful examinations, and keep better follow-up notes. This leads to more accurate diagnoses. The internes' histories are gone over by the visiting staff and his examination, recommendations, treatment and diagnosis with suggestions for further investigation noted and signed. Consultations are encouraged between different departments which the internes concerned, attend. Thus he familiarizes himself with the methods and ideas of various members of the staff and thereby acquires skill. Though many of the best surgeons in point of skill in operating, diagnostic ability and surgical judgment cannot expound while working details of their work. Yet the interne with eyes open in an endless field of clinical material witnessing the working methods of his seniors all day long—living at all times in the atmosphere of his life's work, must absorb a boundless wealth of all that goes to make for best training.

The Brooklyn Hospital has an Ex-Interne Society, which is very stimulating.

The Jewish Hospital, Brooklyn, has 285 beds and 14 internes. They serve two years; eighteen months being on a preferred service—medicine or surgery; remainder on other departments—obstetrics and the specialties. They are appointed on recommendation. In surgery they take training in diagnosis and after-care, assisting at operations. In medicine rounds are made and cases freely discussed. Routine laboratory technique is under direct supervision of the resident pathologist. Autopsies are few in number. A clinical society meets once a month—cases from the wards being presented. Internes participate in their preparation and presentation. A library provided, has not been well supported or controlled until recently. Magazines are available. A Reading Club has been formed.

Dr. Warren Duffield, for the St. John's Hospital, says on account of the war, inferior men had to be taken. This type is so filled with excuses he has no time for work; is never on time for operations, dressings are slighted and histories unrecorded. For all these failings there is always an alibi. He and his fellow-conspirators have marked the calendar for time off weeks ahead. He is an ornament, not a necessity. One can guide him through a herniotomy, but it is time wasted. Supply such men with a library and they remove it to their home for permanent reference. Frankly discuss a patient's condition with them to stimulate their zeal and you are classed as a first-year medical student, and they feel entitled to a consultant's fee for their aid.

The average house officer aims, perhaps unwittingly, at being an operator rather than a surgeon. He prefers the operating room to the wards or laboratory. To make the acquisition of diagnostic skill and surgical judgment more attractive is to inform the surgical internes that the number and character of operations they would be permitted to perform would depend not only on their operative skill, but also on the time and attention given to working up the cases and following up the patients.

In the Brooklyn 315 bed Hospital, there are twelve internes, who serve two years on a mixed rotating service—six junior and six senior positions of two months each. Lots of applicants appear.

Disadvantages: The attending doctor loses his interne just when he is becoming valuable. No attempt is made to produce trained surgeons, internists or specialists. An endeavor is made to standardize methods for the benefit of house staff and nurses. In the laboratory they are taught special serological bacterial and chemical examinations; also tissue study. On the ambulance and in the emergency ward training in minor medicine and surgery is acquired. They are encouraged to work in the dispensary, though this is not obligatory. The House or Junior is required to take an accurate history and does physicals on all except private patients, making a tentative diagnosis. Unsatisfactory histories must be revised. Everywhere team work is cultivated. Unnecessary formalities are dispensed with, but good discipline is insisted upon. Originality is encouraged and suggestions

welcomed. Attendings try to answer why, when queries are made by internes. All services hold formal weekly rounds and conferences, at which interesting cases are discussed. Reasons for failures or deaths are studied and a general survey of the week's work made. As ability and reliability are shown, responsibilities are entrusted. Under supervision all various procedure in the care of the patients are undertaken, and after a period of assisting in the operating room, the interne does enough of the more common operations (under direction) to learn to handle tissues. The amount of this work depends on the learner's ability and on the amount of available material. A normal House man will let it be known if he is not getting a square deal.

In St. Catharines' hospital internes serve twenty months, one new interne being taken on every two months. The first two months are spent on laboratory and X-ray work, six hours weekly being spent with the Roentgenologist. The routine examination of specimens, the taking of routine bloods and wassermans are done by technicians, leaving the interne free to do the more scientific and instructive branches of pathological work. He is occasionally called upon to do blood counts. The next four months are spent on the medical and pediatric service—two months as assistant and two as House. Then two months as ambulance man, emergency dispensary work and dressings of compensation cases. Next four months on Gynecology and obstetrics. Last eight months surgery. At service operations the interne is first assistant and first or second at all other operations. He is given the minor and more common operations to do, under guidance.

One interne is Librarian of an up-to-date library. Visiting men are urged to assist internes in every possible way. On each Monday the interne is given a printed form on which are printed his activities—ambulance calls, blood counts, obstetric deliveries, histories, physicals, etc. At evening he enters in each column, the number of things done. In this way at a glance his superiors can see amount of work done for any period. At St. Catharines there is an interne society to stimulate study and promote interne welfare. It meets twice a month. Two men report two cases at each meet. Free discussion follows, the visiting man whose case is discussed, sums up. Much enthusiasm is shown.

A Dream

Last evening I was talking
With a doctor, aged and gray,
Who told me of a dream he had,
I think 'twas Christmas day.

While snoozing in his office,
The vision came to view,
For he saw an angel enter,
Dressed in garments white and new.

Said the angel, "I'm from heaven;
The Lord just sent me down,
To bring you up to glory,
To wear your golden crown.

"You've been a friend to everyone,
And worked hard, night and day;
You have doctored many thousands,
And from few received your pay.

"So we want you up in glory,
For you have labored hard,
And the good Lord is preparing
Your eternal, just reward."

Then the angel and the doctor
Started up toward glory's gate,
But when passing close to hades,
The angel murmured, "Wait."

"I have here a play to show you;
It's the hottest place in hell,
Where the ones who never paid you
In torment always dwell."

And, behold, the doctor saw there
His old patients by the score,
And taking up a chair and fan,
He wished for nothing more.

But was bound to sit and watch them,
As they sizzle, singe and burn,
And his eyes would rest on debtors
Whichever way they'd turn.

Said the angel, "Come on, doctor,
There the pearly gates I see;"
But the doctor only muttered,
"This is good enough for me"'

He refused to go on further,
But preferred to sit and gaze
At that crowd of rank old dead-heads,
As they lay there in the blaze.

But just then the doctor's office clock
Cuckooed the hour of seven,
And he awoke to find himself
In neither hell or heaven.

LEGS

The fashion of nudity which has become the obsession of the feminine mind, has had its advantages from the point of view of the anatomist, who studies art in Nature. This art has a standard—a standard with which nothing can compete, represented by the alluring beauty in the Venus de Milo. And that standard, whether consciously or not, is ever present in the mind of the anatomist, and by this he judges "a female form divine." The opportunity for exercising this observation upon Nature's art, has presented itself by the short skirts and the open-work, skin-tight stockings now the feature of the prevalent fashion. But how playful is Nature in her moods, and, all unwittingly, how women have played into her hands. No one can blame Nature for ignoring art in women's legs when that is obvious. Of what use was it to make display designs of the legs when Nature intended them to be covered? On the other hand, there is often great beauty in the form of women's arms. What is more noticeable than the line of beauty which runs from the elbow to the tip of the little finger without break or deviation? The closer that this line approaches perfection, the further is man removed from competition with women in the art of his anatomy. With respect, however, to the legs Nature knows her business. To make a point of endowing the aggressive obtrusiveness of the gastrocnemius the shyness, though indispensable importance, of the soleus, the "place in the sun" of the tibialis anticus—with artistic merit, would be purposeless. Nevertheless, the anatomist looks to Nature to do her best in all cases, and what has fashion revealed to him? That question may be left unanswered, because women, like other persons, and other living creatures, have no control over the artistry of their anatomy. Meanwhile, man sees in this fashion a challenge —suggesting competition. Men's dress labours him with trousers concealing his legs. For comfort's sake he should take the cue from women—cut his trousers to the level of the knees, and wear open work, skin-tight stockings. Then in tramcars, in railway carriages, omnibuses, and drawing-rooms, with the legs crossed, both men and women could enter blithely into the competition of the display of their nether limbs. To some men, however, competition in any case, is impossible. They exhibit the disability of bow-legs. This, nevertheless, has its compensa-

tion. It is calculated to recall many happy days of childhood days, when the pleasure of riding a pony—or even the humble donkey—as a country-life recreation was available, regardless of the consolidation wanting in osseous tissues in early years. Horse riding in the immature days of childhood is one of the commonest causes of bow-legs in men.—*Medical Press.*

NEED MORE MONEY? IMPROVE YOUR SERVICE

PUBLIC WILL SUPPORT THE HOSPITAL THAT IS DOING GOOD WORK — TREND OF THE TIMES DEMANDS IMPROVEMENTS

By Asa S. Bacon, Superintendent Presbyterian Hospital of Chicago.

In reviewing the events of the past year in the hospital field, one is impressed with the development of the campaign for hospital standardization that has been carried on by the American College of Surgeons, the American Medical Association and the American Hospital Association, and has now been taken up by the new American Conference on Hospital Service. Results are already being felt, and will be still more in evidence in the future.

One of the reasons for the impetus which standardization has received is the war work of our doctors, whose experience in the Army has demonstrated to them the wonderful improvement that is brought about when system, record-keeping and efficiency in medical work are introduced. They have become hospitalized, in the sense that they appreciate more than ever before what a wonderful conserver of time and energy the hospital is, and how much more efficient the doctor becomes when he brings his patients together in the hospital, instead of going from house to house to attend them. He can give better service to his patients with a smaller expenditure of energy, and they, because of the improved service, get well quicker. Their stay in the hospital therefore costs them little if any more than if they remained at home.

Increased Demand for Beds

The increased demand for hospital beds now being experienced is tending to raise standards. Better conditions are being developed all around, efficient methods are being studied more attention is being paid to the keeping of records and the development of laboratory service. Standardization has created a demand for laboratory workers, dietitians, social service workers, public health experts, occupational therapists and other specialists in the field of hospital service.

All of this is favorable to superintendents and boards of managers, because by raising standards and making the hospital of greater benefit to the community, they are enabled to go before the public and ask for money with the assurance that it will be given. The public appreciates good service and will support the hospital that provides it.

I would like to impress on hospital people everywhere that the way to solve their financial problems is by giving 100 per cent. service; by improving their organization and equipment to the end that every patient will get the utmost in attention, the best nursing and the best medical and surgical attendance, good food, a clean, comfortable room and all that the best in hospital service means.

Service Gets the Money

Higher standards of efficiency in hospital work will invariably get the money. The public will respond every time to the appeal of an institution that is rendering high-class service to the community, whereas the hospital which is doing slip-shod work cannot expect the people to come to its support when it asks for money. Do the work that the community has a right to expect and demand, and the matter of financial backing will take care of itself.

The hospitals have a particularly strong position just now, because it is plain to all hospitals cannot be that classed even remotely as profiteers. With most items of operating expense up 100 per cent., and with labor scarce and high-priced, the hospitals have raised their rates only moderately, the average increase throughout the country being about 25 per cent. This sort of record shows beyond question that the hospitals are public service institutions, and that they are seeking not

big financial returns for their work, but merely an opportunity to give the best possible service for what it costs to render it.

We need more hospital beds, and this means that more construction work will be undertaken during 1920, to supply the requirements of the public along hospital lines. The educational work that is being done to show the people the value of going to the hospital when they are sick or injured, together with the work which the Red Cross and Public Health Service are doing to give hospital care to those who need it, is vastly broadening the field in which we are working. All of this increases the importance of new construction, and suggests the vital necessity of building every new hospital right.

Look Outside For Ideas.

The superintendent in looking around for ideas on hospital construction and equipment should give more thought to the comfort of his patients, and should build with a view to the personal well-being of each individual patient. Let him visit not only other hospitals, but department stores, hotels and factories in search of methods whereby mechanical devices may be introduced for the purpose of conserving human energy and speeding up service. The comfort of patients, together with the scarcity of capable employees, demands that this substitution be made wherever possible.

The financial condition of the hospitals is being improved through better collections, made possible in large measure by prohibition and increased wages for laboring men. The same factors are creating a demand for private rooms in large number. Here again is material for thought on the part of the superintendent and architect who are working to design a hospital that shall be efficient as an operating unit.

Safe Investments Plentiful

Consideration of the financial situation likewise emphasizes the splendid opportunities which are available at present for the safe investment of hospital funds. There are many good securities available at lower price levels than ever before known, which means that the institution with endowment and other funds to invest is able to dispose of its money to the best possible advantage, from the standpoint of both safety and return.—*Hospita' Management.*

HOSPITAL FINANCES

A writer in the *New Zealand Journal of Health and Hospita's* writes the following, which will prove of interest to our readers:—

Apart from the question of the provision of funds for capital expenditure, Hospital Boards being the administrators of charitable relief throughout the Dominion, any abundance or otherwise of money and of work affects their finance, and any periods of depression always mean an increased burden on the charitable-aid funds. There is a close connection between poverty and thriftlessness. Thoughtless expenditure and slackness in work oftentimes accompany periods of prosperity, and have been much in evidence during the past two years. This results eventually in a period of depression. Apart from this, Hospital Boards have already to face increased expenditure in charitable aid, and though we have no figures to show whether there has been any disproportionate increase in the number of persons receiving relief, yet we know that the increased cost of living has warranted Boards giving increased relief to those already receiving it. It is opportune, therefore, to draw attention to the need for economy by every one in every direction.

Despite the above-mentioned causes of curtailment of expenditure, there appears, strangely enough, to be plenty of money available for amusements. The record amounts that pass through the totalizator at race meetings, the well-attended picture-theatres, and the number of people travelling on pleasure all seem to point to an abundance of money. Certain classes, doubtless, have done remarkably well, and have money to spend. Many have probably found that they have rapidly amassed a considerable amount of money, and not having been accustomed to the responsibilities and duties attaching thereto, and being desirous naturally enough, to have what is vulgarly known as "a good time," have spent well if not wisely. It is quite a common belief that so long as money is spent and is kept in circulation it does not matter upon what it is spent. Such arguments are entirely fallacious. The spending of money upon luxuries means the diverting of labor and capital to the production of luxuries, instead of the production of necessities, which might be sorely needed for the mass of less fortunate

people. Moreover, conspicuous waste and ostentatious expenditure have a bad effect upon others, and cause at least discontent even if they do not cause emulative extravagance on the part of those not able to afford it. A family living contentedly enough on what it might consider sufficient income might become discontented, if not actually extravagant, by seeing the expenditure of a neighbor whose income has increased more than theirs. To be "well off" is not an easy term to define. It is purely relative, and can be interpreted only in connection with the requirements of the indivldual, and one man may in fact be "better off" at a lower income than another. Wealth cannot, therefore, be defined purely in the terms of purchasing-power. The simplicity of one's needs is as important a factor as the size of one's income. The contentment and serenity of mind which results from a judicious choice of the more gracious things in life is within the reach even of those of moderate means, and is not necessarily to be interpreted in the terms of motor-cars, jazz bands, race meetings, expensive hotels, and high living generally. Neither, on the other hand, is it necessary for life to be drab and uninteresting. We do not want to stifle the laughter of youth. We certainly do not say "there shall be no more cakes and ale." When the wants of the many are satisfied, then a certain amount of what is understood as luxury is permissible. There is, however, a great difference between expenditure of a wasteful nature—such as that, for instance, upon expensive but flimsy dresses which may be discarded after having been worn once or twice—and expenditure upon solid and enduring articles of beauty. Moreover, when the contemplation of such beauties is open to all, such expenditure ceases to come within the term "luxury." "Man does not live by bread alone." Something more than food, warmth, and shelter is required to make the life of man different from that of an animal. Certain well-expended money upon arts, as well as science, is not only permissable but desirable; but in view of the actual necessities of so many it is questionable whether large sums spent by private individuals in such directions are entirely economically permissible unless the community is allowed to share in the enjoyment thereof. Every one has the right, as the result of his efforts, to as much privacy as possible, and to surround himself (within reason) with articles of taste and vertu; but how often do we see large and ostentatious establishments maintained by private individuals in which there is little more comfort and privacy than in a well-appointed hotel, and in

the maintenance of which much labor is employed which might be usefully diverted to other channels. As an example, a large staff of gardeners may be employed upon the grounds of a private individual, and this expenditure might be more usefully employed in growing food for the masses; but should these grounds—which might be seldom seen and enjoyed by the owner—be made available for the public, then such expenditure could hardly be deemed a luxury.

Together with the idea that it does not matter upon what money is spent so long as it is spent there seems to be a general notion that overproduction could easily result if every one devoted their energies to utilitarian works. Such notions have probably resulted from experience of periods of depression that occurred more especially at the end of the last century, and to a smaller degree since—*e.g.*, in or about 1907, when there seemed to be few or no markets for produce, either raw or manufactured. The fact, however, is apt to be overlooked that at those very periods there was much distress, and that numbers of people were in dire need of the very foodstuffs and other articles for which there appeared to be no markets. This state of things, therefore, cannot be attributed to overproduction. One has only to pause and consider whether, if every person had to produce nothing more than his own needs, and even had the skill to do so, and had access to labor-saving machines and implements, he would have any time to spare after having to grow his own food, make his own clothes, build his own house, educate his own children, provide his own fuel and blankets, and the host of other things, apart from such articles as tooth-brushes, time-pieces, implements, and the hundred and other articles of every-day use. If this truth were more clearly realized we should hear less of the "go-slow policy." Apart from the effects of the war (and war, unless inevitable, is the most expensive and wasteful luxury of all) there would be no need to pen an article urging retrenchment of expenditure upon such an essential, necessary, and economic undertaking as the building of hospitals if the necessity for the practice of but two important principles were recognized—viz., (1) the abandonment of the "go-slow policy" and increase in the work of production by every one; (2) the curtailment of expenditure upon luxuries more especially on those of

a perishable nature. If these two aims were steadily pursued there would be ample capital and labor available to carry out our necessary hospital undertakings. Whilst the Christmas season of festivity may not be the most opportune time to draw attention to the need of economy, yet it may well serve as a good resolution for the New Year.

CHRONIC CATARRHAL OTITIS MEDIA

In a contribution to the Practitimec (Br.), on this subject, Sir Wm. Milligan says there has been no substantial progress made in the treatment of this disease during the past 20 years. The condition involves changes in the superficial epithelium, hypertropy and scbrosis of the connective tissue with atropy. It results from neglected exudatire catarrh in early life, the treatment of which is too often inefficient and insufficient. Drainage has not been complete enough. "I maintain," says Milligan, "if we are to take a long view, the indication to incise the membrana tympani and drain the middle ear is almost as necessary in exudative catarrh, as it is in suppurative catarrh . . . . . Interference with the normal ventilation of the middle ear, either from the presence of a small amount of organized connective tissue around the tympanic orifice of the tube is the cause of the ultimate lencocytic activity in the subepithefial layers of the mucoperiosleum . . . . Dense sclerotic fibrous tissue forms locally or diffusely contracts and aukylosis the ossicular chain or occludes the fossula rotunda. Atrophy ensues, the tube opens and the mid-ear ceases to function.

Sir William refers to the measures for treatment—pneumomassage, injection of alkaline fluids, hot air, medicated vapors, use of bongies. He believes intra tympanic injections in cases of advanced sclerosis frequently do more harm than good Of what use is it pumping fluids into a cul-de-sac, whose lining membrane has lost its powers of absorption?

The essaysist recommends an artificial perforation of the tympanum—providing the patient has not lost 75 per cent. of normal hearing. He uses a galvano-cantery to make the opening. This should not be allowed to close, but its edges should be made to epithelialize by the implantation of epithebal cells—a difficult procedure.

The B. and V. rays of radium have the power of transforming hard and dense mesoblastic tissue into something like embryonic tissue, soft and pliable and gives hope of help in future treatment of this obstinate condition.

Book Reviews

An Historical Fact, worth perpetuating if it be a Fact, is stated in the N.Y. Medical Record, 17. IX. 21, page 515, infrà:—

History of Deaf Mute Instruction. The priority in this advance is usually given to Cordan, with Fabricius ab Aquapendente as the practical successor.

Recently Spain has asserted her claim as the rightful pioneer through the names of Pedro Ponce, a Benedictine, who was the original instructor (1500-1584) and Bonet, who published the first book on the subject in 1620— La Pediatria.

Stammering.

The London Correspondent of the N. Y. Med. Record, 17. IX. 21, excerpting portions of the Annual Report, 1920, of Dr. W. H. Hamer, M. O. H., County of London, has a note upon *Stammering* which is seemingly notifiable and not uncommon there. During 1920 the number of notifications of this disability was 914,682 boys and 232 girls. He classifies them in two divisions. In the first are placed those which develop stammering along with the development of speech: difficult and less tractable cases. In the second those which occur after a period of normal speech, the onset of which is mostly attributable to nervous shock and fright, night terrors, nightmares and "air raids."

The majority of the children were found at the outset to possess very poor chest development with marked rigidity and spasmodic breathing to which treatment was specially directed. During 1920, 275 children were under treatment, with the result of 106 cures, 61 left before cure was attained, for various reasons, and 108 remained in attendance.

Left-handedness, sometimes thought to be associated, was found in 13 cases only.

I. H. C.

Materia Medica and Therapeutics.—A text book for nurses by Linette A. Parker, B. Sc. (Columbia Univ.), R. N. third edition, thoroughly revised, illustrated with 30 engravings and 3 plates. Lea & Febiger, Philadelphia and New York. 1921. Price $2.50.

The author describes well the use of drugs, giving the practical points for an intelligent handling of drugs—not for prescribing. She classifies them according to their action on the skin, muscles, nerves, urinary organs and other systems, describing the action of the more commonly used remedies. Chapters on toxic action of drugs and antidotes, on solutions, on thermometers, and in calculations of doses for hypodermic use follow. A final section is devoted to a brief discussion of psychotherapy, hydrotherapy, electrotherapy, Raytherapy and vaccines.

WILLIAM FRANCIS AYE

Behold an engineer at ease, for even as you read this W. F. Tye is enjoying his favorite pastime of travel in a motor trip in Southern France and Northern Italy.

From his window we looked out towards Mount Royal, over the roofs of aristocratic Montreal and talked of those interesting days gone by, when Western Canada was just being discovered by ranchers and settlers.

W. F. Tye, was born at Hazel, Waterloo County. He was educated at local school and at the age of sixteen determined on engineering as a life work as a result of a rather chance circumstance. A relative was employed in the Geological Department at Ottawa and on one of his visits to the home of the youthful Tye the stories of engineering work that were recounted kindled in the boy's mind a desire for such a life.

He was accordingly sent to Ottawa College which at that time had a course intended for the training of engineers. Although the work given was not pre-eminently practical, Mr. Tye speaks with affection of the days spent there and of the broad character of the training given. Father Belland, an

ex-colonel and military engineer, was in charge of instruction in the engineering subjects. Father Taberet, an old class-mate of His Holiness Pope Leo XIII, taught mathematics, and Mr. Tye tells how the general joke used to be to ask him who had come out ahead in their studies. Perhaps no other is recalled with so much love as Father Bennet, professor of English, strange as this may seem in a faculty that was not essentially literary.

In the third year of his course, the college, as a result of change in policy, discontinued the Engineering Faculty and left the young student to finish his course elsewhere. This he did at the School of Practical Science, where in 1881 he worked with the now oldest graduate, J. L. Morris of Pembroke.

Although taking the final examinations, the regulations did not provide for the granting of a diploma as he had not pursued a complete course. However, Mr. Tye regards himself as a Varsity man and the "Old School" and the University are proud to count him in their fold. His fee for alumni meetings is among the first to come in and alumni officials can bear witness that this is no mean test of the zeal of an alumnus.

Following college the picturesqueness of his next few years loses much in a brief recounting. In '81 he went up by way of Chicago, Fort Benton, and MacLeod to the present Province of Alberta on a surveying expedition. One of the few parties encountered was of surveyors whose transit man was none other than C. M. MacGrath, now on the Inland Waterways Commission and previously Fuel Controller. Mr. Tye's account of his experiences on the Prairies sounds like a chapter from Parkman's *California and Oregon Trail.*

From '82 to '85 he was engaged on construction on the C.P.R. with Jas. Ross, C.E., and others. From '85 to '87 he worked on grade reduction on Hill's newly constructed lines and on construction work in Montana.

AN IDEAL RESORT FOR CONVALESCENT PATIENTS*

Physicians have frequent opportunities of referring those convalescing from illness to a resort where they can quickly recover their old-time vigor and enjoy an almost ideal climate, 2,500 feet above sea level. Such a resort is Virginia Hot Springs, just one night out of New York. The management have spent a huge sum of money on this choice spot in "Old Virginny," and are anxious that the Canadian medical profession should continue to refer cases there, as they have done in years gone by. The Homestead Hotel is one of the handsomest houses in America. It is built of solid brick, containing 500 guest rooms, with many parlor suites and 300 private baths. It is spacious, dignified, quiet and restful, with magnificent mountain views on every side. It is no exaggeration to say that Hot Springs means the Homestead Hotel. The Company owns 5,000 acres surrounding the hotel, so that physicians can understand that their patients have every opportunity of enjoying outdoor life and regaining thereby their normal strength.

The dominant factor making Hot Springs world-famous is the cure in which the climate as well as the water assist. The waters are conducted by gravity to the bathhouse and distributed fresh from the ground to the bathing apartments on different floors without loss of heat or its increase by artificial means, and fully charged with all their gases and other health-giving qualities. At none of the celebrated places in Europe, and at no other springs in America, is the temperature prescribed for hot baths that at which the water actually emerges from the earth in the natural springs.

The springs are beneficial, not only for bathing, but for drinking. Besides the hot springs, the effects of which as drinking waters are pronounced, there are magnesia, sulphur, and soda springs within the grounds, and alum water from a spring not far distant. The water from the soda spring comes strong and clear from the ground at a uniform temperature of 74 degrees. Physicians should address for full information Christian S. Andersen, Esq.

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